

Mr. Embrey's Direct Line: (512) 322-5829
Email: tembrey@lglawfirm.com

August 14, 2023

Mr. Jeff Walker
Executive Administrator
Texas Water Development Board
P. O. Box 13231
Austin, TX 78711-3231

RE: Submission of Terrell County Groundwater Conservation District
Management Plan for TWDB Review and Approval

Dear Mr. Walker:

The Board of Directors of the Terrell County Groundwater Conservation District ("District") adopted the enclosed management plan after notice and hearing on August 14, 2023. The District submits the enclosed plan for Texas Water Development Board ("TWDB") review and approval as required by Section 36.1072(e) of the Texas Water Code. The enclosed plan fulfills the requirements of Chapter 36 of the Texas Water Code and Chapter 356 of the TWDB rules contained in Title 31 of the Texas Administrative Code. The plan will take effect as of the date of TWDB approval.

Documents demonstrating compliance with the regulatory and statutory requirements related to the development and adoption of management plans are attached as appendices to the enclosed plan, including evidence of coordination with surface water management entities, a resolution of the Board of Directors adopting the plan, and proof that the plan was adopted after notice and hearing.

The District appreciates the efforts of TWDB staff during the preparation and review of its management plan. Please let me know if you require any additional information in the review of the enclosed management plan.

Sincerely,



Ty H. Embrey

THE/ldp

cc: Mrs. Debbie Deaton, Board President
Terrell County Groundwater Conservation District

TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT

Groundwater Management Plan

Originally Adopted: July 25, 2013

Approved by the Texas Water Development Board: November 21, 2013

Re-Adopted: July 25, 2018

Approved by the Texas Water Development Board: October 12, 2018

Re-Adopted: August 14, 2023

Approved by the Texas Water Development Board: _____

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I. DISTRICT OBJECTIVES

The mission of the Terrell County Groundwater Conservation District (“District”) is to conserve, preserve and protect the quality and quantity of the groundwater resources for the citizens of Terrell County. The District recognizes that groundwater conservation districts are the state’s preferred method of groundwater management and will work with local stakeholders towards achieving its objectives. The District will accomplish its objectives by working to lessen interference between water wells, minimize drawdown of groundwater levels, prevent the waste of groundwater, and reduce the degradation of groundwater quality within the District while helping the local economy maintain and improve its current condition. The District will also use the authority granted in its enabling act in Chapter 8837 of the Texas Special District Local Laws Code (the “District Act”) and all applicable state laws to protect and maintain the groundwater resources within the District’s boundaries.

II. PURPOSE OF GROUNDWATER MANAGEMENT PLAN

The purpose of this Management Plan is to provide a planning tool for the District as it works to manage, protect, and conserve the groundwater resources within its boundaries and to meet the requirements of Chapter 36 of the Texas Water Code and Texas Water Development Board (“TWDB”) rules in Title 31 Texas Administrative Code (“TAC”) Chapter 356. This Management Plan currently contains the best available hydrogeological and technical information provided by the TWDB for the groundwater resources of the District. As the District obtains more site-specific groundwater information, the District will update and amend this Management Plan as necessary.

III. DISTRICT INFORMATION

A. District Creation

The District was created by the 82nd Texas Legislature, Regular Session, in 2011 through the enactment of House Bill 2859. The creation of the District was confirmed by the citizens located in Terrell County at an election held on November 6, 2012. The District contains the authority and responsibilities specified in the District Act, Chapter 36 of the Texas Water Code, TWDB Rules, this Management Plan, and the District Rules, as they may be adopted and amended.

B. District Board of Directors

The Board of Directors is made up of five members appointed by the Terrell County Commissioners Court in accordance with the District Act.

C. Authority of District

The District has the authority and duties given to groundwater conservation districts by Texas Water Code Chapter 36, TWDB rules in 31 TAC Chapter 356, and the District Act. The District exercises its authority to preserve and protect the groundwater resources of the District through the adoption and implementation of this Management Plan and District rules, as they may be adopted and amended.

D. Location and Extent of District Boundaries

The District's boundaries consist of the entire territory within Terrell County.

E. Groundwater Resources of District

All of the territory within the District is located in the outcrop of the Edwards-Trinity (Plateau) Aquifer.

A diagram of the Edwards-Trinity Plateau Aquifer can be found at Appendix A. The TWDB generally describes the groundwater resources of the Edwards Trinity (Plateau) Aquifer as follows:

“The Edwards-Trinity (Plateau) Aquifer is a major aquifer extending across much of the southwestern part of the state. The water-bearing units are composed predominantly of limestone and dolomite of the Edwards Group and sands of the Trinity Group. Although maximum saturated thickness of the aquifer is greater than 800 feet, freshwater saturated thickness averages 433 feet. Water quality ranges from fresh to slightly saline, with total dissolved solids ranging from 100 to 3,000 milligrams per liter, and water is characterized as hard within the Edwards Group. Water typically increases in salinity to the west within the Trinity Group. Elevated levels of fluoride in excess of primary drinking water standards occur within Glasscock and Irion counties. Springs occur along the northern, eastern, and southern margins of the aquifer primarily near the bases of the Edwards and Trinity groups where exposed at the surface. San Felipe Springs is the largest exposed spring along the southern margin. Of groundwater pumped from this aquifer, more than two-thirds is used for irrigation, with the remainder used for municipal and livestock supplies. Water levels have remained relatively stable because recharge has generally kept pace with the relatively low amounts of pumping over the extent of the aquifer.”¹

¹ George, Mace, and Petrossian, Aquifers of Texas, Texas Water Development Board Report 380, July 2011, p. 35, available at: http://www.twdb.texas.gov/publications/reports/numbered_reports/doc/R380_AquifersofTexas.pdf.

IV. CRITERIA FOR PLAN APPROVAL

A. Planning Horizon

This Management Plan is adopted to be effective for a five (5) year planning period, which will begin on the date TWDB approves this plan. In accordance with Section 36.1072(e) of the Texas Water Code, the District will review and re-adopt its Management Plan, with or without amendments, every five years and will re-submit its Management Plan for TWDB approval after re-adoption.

B. Plan Adoption

Public notices demonstrating that this Management Plan was adopted after the required public hearings and District Board meeting are attached to this plan as Appendix B.

C. Board Resolution

A certified copy of the resolution of the Board of Directors of the District adopting this Management Plan is attached to this plan as Appendix C.

D. Coordination with Surface Water Management Entities

The District provided each of the surface water management entities within its boundaries with copies of this plan to coordinate on the development of this plan. Sample correspondence sent to each surface water management entity and a list of the surface water management entities who were provided a copy of the plan are attached to this plan as Appendix D.

V. ESTIMATES OF TECHNICAL INFORMATION REQUIRED BY 31 TAC § 356.52 AND TEX. WATER CODE § 36.1071

A. Modeled available groundwater in the district based on the desired future condition established under Tex. Water Code § 36.108 — 31 TAC § 356.52 (a)(5)(A) and Tex. Water Code § 36.1071(e)(3)(A)

Modeled available groundwater is defined in Section 36.001(25) of the Texas Water Code 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.” The desired future condition of the aquifer may only be determined through joint planning with other groundwater conservation districts in the same Groundwater Management Area (“GMA”) as required by Section 36.108 of the Texas Water Code. Desired future condition is defined in Section 36.001(30) as “a quantitative description, adopted in accordance with Section 36.108, of the

desired condition of the groundwater resources in a management area at one or more specified future times.”

The District is part of GMA 7, and the groundwater conservation districts of GMA 7 last adopted desired future conditions (“DFCs”) for the Edwards Trinity (Plateau) Aquifer that were approved by the TWDB on February 18, 2022. The DFC adopted for the District is an average drawdown of no more than two (2) feet for the Edwards Trinity (Plateau) Aquifer.. The Modeled Available Groundwater estimate associated with this DFC that applies to the District is 1,420 acre-feet/year, as described in GAM Run 21-012 MAG. The 2022 modeled available groundwater and DFC information for the District is attached to this plan as Appendix E.

B. Amount of groundwater being used within the district on an annual basis — 31 TAC § 356.52 (a)(5)(B), 31 TAC § 356.10(2) and Tex. Water Code § 36.1071(e)(3)(B)

To estimate the annual amount of groundwater being used in the District, the District relies on TWDB’s Estimated Historical Water Use Survey data. Details on the total amount of groundwater use for the past 16 years based on TWDB Water Use Survey Data are attached to this plan as Appendix F.

C. Annual amount of recharge from precipitation to the groundwater resources within the district — 31 TAC § 356.52 (a)(5)(C) and Tex. Water Code § 36.1071(e)(3)(C)

The estimate of the annual amount of recharge from precipitation to the aquifer within the District is based on Groundwater Availability Model (“GAM”) Run 23-002. GAM Run 23-002 provides that the annual amount of recharge from precipitation to the aquifer within the District is 41,490 acre feet. GAM Run 23-002 was conducted by the TWDB and is the most recent GAM Run available to assess the hydrogeology of the groundwater resources in the District. GAM Run 23-002 and the recharge data received from the TWDB are attached to this plan as Appendix G.

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 — 31 TAC § 356.52 (a)(5)(D) and Tex. Water Code § 36.1071(e)(3)(D)

The estimate of the annual amount of water discharged to surface water systems by the groundwater resources of the District based on GAM Run 23-002 is 46,348 acre feet. GAM Run 23-002 and details on the amount of water discharged to surface water systems in the District are provided in Appendix G.

E. 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 — 31 TAC § 356.52 (a)(5)(E) and Tex. Water Code § 36.1071(e)(3)(E)

(1) Estimated annual volume of flow into the district within each aquifer in the district

The estimate of the amount of water flowing into the District within each aquifer in the District based on GAM Run 23-002 is 77,440 acre feet. GAM Run 23-002 and details on the amount of water flowing into the District within each aquifer are attached to this plan as Appendix G.

(2) Estimated annual volume of flow out of the district within each aquifer in the district

The estimates of the amount of water flowing out of the District within each aquifer in the District based on GAM Run 23-002 is 73,163 acre feet. GAM Run 23-002 and details on the amount of water flowing out of the District within each aquifer are attached to this plan as Appendix G.

(3) Estimated net annual volume of flow between each aquifer in the district

The estimate of the net annual volume of flow between each aquifer in the District is not applicable based on GAM Run 23-002. GAM Run 23-002 and details on the amount of water flowing between each aquifer in the District are attached to this plan as Appendix G.

F. Projected surface water supply in the district, according to the most recently adopted state water plan — 31 TAC § 356.52 (a)(5)(F) and Tex. Water Code § 36.1071(e)(3)(F)

The most recently adopted state water plan is the 2022 State Water Plan. This Plan indicates a projected surface water supply for the District of approximately 441 acre feet per year for years 2020 through 2070. Data received from TWDB on the amount of surface water supply in the District is attached to this plan as Appendix H.

G. Projected total demand for water in the district according to the most recently adopted state water plan — 31 TAC § 356.52 (a)(5)(G) and Tex. Water Code § 36.1071(e)(3)(G)

The 2022 State Water Plan indicates a projected total water demand for the area within the District of 1,484 acre feet per year for year 2070. Details on the total demand for water in the District based on the 2022 State Water Plan are attached to this plan as Appendix I.

VI. CONSIDER THE WATER SUPPLY NEEDS AND WATER MANAGEMENT STRATEGIES INCLUDED IN THE ADOPTED STATE WATER PLAN — TEX. WATER CODE § 36.1071(E)(4)

The District has reviewed the 2022 State Water Plan data on water supply needs and water management strategies within the District. TWDB defines “water supply needs” as the projected water demands that are in excess of existing water supplies for a water user group or wholesale water provider. TWDB defines “recommended water management strategy” as a specific project or action to increase water supply or maximize existing supply to meet a specific need. The 2022 State Water Plan projects that Terrell County will have a surplus of water for its needs related to county-other, irrigation, livestock, and service to the community of Sanderson provided by the Terrell County Water Control and Improvement District No. 1. The 2022 State Water Plan projects a water supply need in Terrell County related to mining of 483 acre-feet by 2020, rising to 586 acre-feet by 2030, and then decreasing to 195 acre-feet by 2070. There are no water management strategies identified in the 2022 State Water Plan for Terrell County. A table of the data showing the water supply needs and water management strategies contemplated for the District in the 2022 State Water Plan is attached to this plan as Appendix J.

VII. DETAILS ON THE MANAGEMENT OF GROUNDWATER SUPPLIES IN THE DISTRICT — 31 TAC § 356.52(a)(4)

The Texas Legislature has established that groundwater conservation districts are the state's preferred method of groundwater management. Chapter 36 of the Texas Water Code requires the District to work within GMA 7 to establish DFCs for the aquifers within the District's boundaries, have management goals that address the DFCs and modeled available groundwater calculations in this Management Plan, and then adopt and enforce rules to manage the groundwater resources in a way that allows the adopted desired future conditions to be achieved. The District will use the regulatory tools it has been given by Chapter 36 to properly address the groundwater issues within its boundaries, including groundwater supply and groundwater quality. While using its regulatory tools to accomplish the District's statutory objectives, the District will give strong consideration to the economic and cultural activities which occur within the District and which rely upon the continued use of groundwater.

One of the District's objectives is to lessen the interference between wells. To meet this objective the District adopted spacing rules which require new wells to be spaced a certain distance from existing or previously permitted wells. Another way the District will work to lessen interference between wells is to require all existing and new wells to register with the District. This requirement allows the District to have information on the location and proximity of all wells within its boundaries.

The District intends to help prevent the contamination of groundwater from abandoned and deteriorated water wells. Wells that have been abandoned or have not been properly maintained can cause surface contamination to quickly reach the groundwater resources of the District. To address this issue, the District adopted rules to require that all abandoned, deteriorated, or replaced wells be plugged in compliance with the Water Well Drillers and Pump Installers Rules of the Texas Department of Licensing and Regulation. The District also requires the capping of water wells that well owners plan to use at a later date. This will likely help to eliminate waste, prevent pollution, and stop future deterioration of well casing.

The District also plans to use the regulatory tools granted to districts by Chapter 36 to preserve and protect the existing use of groundwater within its boundaries. The Texas Legislature gives the District the authority to protect existing users of groundwater, which are those individuals or entities currently invested in and using groundwater or the groundwater resources within the District for a beneficial purpose. The Texas Legislature also provides the authority to preserve historic use by historic users, which are those individuals or entities who used groundwater beneficially in the past. The District strives to protect existing and historic use in accordance with Chapter 36, the District's rules, and the goals and objectives of this Management Plan.

In order to better manage the groundwater resources within the District's boundaries, the District may establish management zones and adopt different rules for each subdivision of an aquifer or geologic strata located in whole or in part within the boundaries of the District or each geographic area overlying a subdivision of an aquifer located in whole or in part within the boundaries of the District. As previously stated, the District will also adopt rules to regulate groundwater withdrawals by means of spacing and/or production limits. The factors to be considered in deciding whether to grant or deny a permit or limit groundwater withdrawals should include those factors set forth in Chapter 36 of the Texas Water Code and the District's rules.

VIII. METHODOLOGY FOR TRACKING PROGRESS TO ACHIEVE THE DISTRICT'S MANAGEMENT GOALS — 31 TAC § 356.52 (a)(4)

To track its progress in achieving its management goals and objectives, the District will prepare an annual report ("Annual Report") to be submitted to and reviewed by its Board of Directors. The Annual Report will be submitted to the Board of

Directors no later than 120 days following the end of the previous calendar year. The Annual Report will address the District's performance regarding each of the management goals and objectives in this plan for the previous fiscal year. Completion of the Annual Report will begin following the end of calendar year 2015. The District will maintain a copy of the Annual Report for public review in its records after the Annual Report has been adopted by the Board of Directors.

IX. ACTIONS, PROCEDURES, PERFORMANCE, AND AVOIDANCE FOR PLAN IMPLEMENTATION — TEX. WATER CODE § 36.1071(E)(2)

The District will use its Management Plan to direct the District's efforts to conserve and protect the groundwater resources within its jurisdiction. The District will make certain that all rules development, regulatory activities, and planning are consistent with this Management Plan.

After receiving public input, the District adopted rules in accordance with Chapter 36 of the Texas Water Code. The District may amend the District rules as necessary to comply with changes to Chapter 36 of the Texas Water Code and to insure the best management of groundwater within the District. The enforcement of the rules will be driven by the hydrogeological and technical information available to the District, including the information provided in this Management Plan. A copy of the District's rules are attached to this plan as Appendix K.

Section 36.108 of the Texas Water Code requires the District to work and plan with other groundwater conservation districts in GMA 7. The District will use this Management Plan as part of its cooperation efforts with the groundwater conservation districts in GMA 7.

X. DISTRICT GOALS, MANAGEMENT OBJECTIVES, AND PERFORMANCE STANDARDS — 31 TAC § 356.51

Each of the District's management goals, objectives, and performance standards are provided in this Section X. As required by TWDB rules, each management goal is time-based and quantifiable. For each management goal, the District has a clear management objective that is specific and provides time-based statements of future outcomes and an associated performance standard that allows the District to evaluate the effectiveness of the District's activities.

A. Providing the Most Efficient Use of Groundwater – 31 TAC § 356.52 (a)(1)(A) and Tex. Water Code § 36.1071(a)(1).

1. Objective: The District's rules will require the registration of all existing and new wells within the District's boundaries. The District will establish a well registration process in the District's rules.

Performance Standard: The District Board will review and discuss the number of existing and new wells registered with the District during at least one meeting of the Board each year.

2. Objective: The District's rules will require permits for all groundwater use located in the District that is considered to be non-exempt from the District's permitting requirements based upon Chapter 36 of the Texas Water Code and the District's rules. The District will establish a permitting process in the District's rules.

Performance Standard: The District will accept and process permit applications for all non-exempt groundwater use pursuant to the permitting process described in the District rules. The District Board will review and discuss the number of permit applications accepted and processed by the District during at least one meeting of the Board each year.

B. Controlling and Preventing Waste of Groundwater – 31 TAC § 356.52 (a)(1)(B) and Tex. Water Code § 36.1071(a)(2)

1. Objective: Each year the District will provide information to the public on reducing and preventing the waste of groundwater. The District will use one of the methods set forth below to provide information to the public:
 - a. offer public presentations on groundwater issues, including waste prevention;
 - b. sponsor an educational program or course;
 - c. distribute literature packets or brochures;
 - d. provide information on the District's web site addressing the prevention of waste; or
 - e. submit newspaper articles to the newspapers of general circulation within the District for publication.

Performance Standard: The District will provide information to the public on reducing and preventing the waste of groundwater at least once each year.

2. Objective: The District will prohibit waste as defined by Chapter 36 of the Texas Water Code within its boundaries and will implement this prohibition through its rules.

Performance Standard: The District Board will review and discuss the number of well owners who violated the District's prohibition on waste and any action taken by the District during at least one Board meeting each year.

C. Addressing Conjunctive Surface Water Management Issues – 31 TAC § 356.52 (a)(1)(D) and Tex. Water Code § 36.1071(a)(4)

1. Objective: The District will send a District representative to attend meetings of the Far West Texas Regional Water Planning Group (“Region E”).

Performance Standard: A representative of the District will attend at least one Region E meeting each calendar year and will provide an update to the District Board at a District Board meeting.

D. 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) and Tex. Water Code §36.1071(a)(5)

1. Objective: The District will monitor water quality on an annual basis within the District by obtaining water quality samples from at least one water well in the District.

Performance Standard: The District’s Annual Report will include a summary of the number of water quality samples obtained and the results of the water quality tests for each well sampled.

E. Addressing Drought Conditions – 31 TAC § 356.52 (a)(1)(F) and Tex. Water Code § 36.1071(a)(6)

1. Objective: The District will access the updated Palmer Drought Severity Index (“PDSI”) map and will check for updates to drought data available through the U.S. Drought Monitor and the TWDB Water Data for Texas posted on the following website:
<https://www.waterdatafortexas.org/drought/>.

Performance Standard: The District will review and discuss current drought conditions based on information from PDSI maps and data from the TWDB Water Data for Texas during at least one Board meeting each year.

F. Addressing Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, and Brush Control, where Appropriate and Cost Effective – 31 TAC § 356.52 (a)(1)(G) and Tex. Water Code § 36.1071(a)(7)

1. Objective: The District will provide information to the public on water conservation by one of the following methods:
 - a. distribute literature packets or brochures within the District;

- b. provide information to the public on the District's web site;
- c. conduct public presentations;
- d. submit newspaper articles to newspapers of general circulation in the District for publication; or
- e. present exhibits at local public events.

Performance Standard: The District will provide information to the public on water conservation at least once each year.

2. Objective: The District will promote rainwater harvesting by providing information to the public by one of the following methods:

- a. distribute literature packets or brochures within the District;
- b. provide information to the public on the District's web site;
- c. conduct public presentations;
- d. submit newspaper articles to newspapers of general circulation in the District for publication; or
- e. present exhibits at local public events.

Performance Standard: The District will provide information on rainwater harvesting to the public at least once each year.

3. Objective: The District will inform the public about the benefits of brush control by one of the following methods:

- a. distribute literature packets or brochures within the District;
- b. provide information to the public on the District's web site;
- c. conduct public presentations;
- d. submit newspaper articles to newspapers of general circulation in the District for publication; or
- e. present exhibits at local public events.

Performance Standard: The District will provide information to the public on brush control at least once each year.

G. Addressing the Desired Future Conditions Established Under Tex. Water Code § 36.108 – 31 TAC § 356.52(a)(1)(H) and Tex. Water Code § 36.1071(a)(8)

1. Objective: The District will take periodic readings from the monitoring wells in its monitoring well network and will utilize the information to help implement its regulatory and permitting program. The District will use the data received from its monitoring well network to monitor water level trends and actual achievement of its desired future conditions. The District will develop a plan for adding new monitoring wells to its existing monitoring network, and the District will work with the TWDB, the United

States Geological Survey, and other applicable agencies to utilize and analyze water level data.

Performance Standard: A summary of the District's monitoring well network, including the number and general location of each of the wells in the network, will be included in the District's Annual Report.

2. *Objective:* The District will conduct water level measurements from at least 50% of the wells in the network on an annual basis.

Performance Standard: The District's Annual Report will evaluate water level measurements taken during the previous calendar year and will include a discussion of the water levels and progress towards achieving the District's desired future condition.

3. *Objective:* The District will monitor estimates of non-exempt groundwater production within the District for use in evaluating achievement of the desired future condition.

Performance Standard: The District's Annual Report will provide an update on the estimates of non-exempt groundwater production within the District and will include a discussion of the estimates in light of the desired future condition.

XI. MANAGEMENT GOALS DETERMINED NOT APPLICABLE TO THE DISTRICT

A. Controlling and Preventing Subsidence – 31 TAC § 356.52(a)(1)(C) and Tex. Water Code § 36.1071(a)(3).

The District reviewed the TWDB report on Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping.² The subsidence risk vulnerability of the Edwards-Trinity (Plateau) Aquifer is indicated as low risk. Therefore, the District believes this management goal is not applicable at this time. The District has not been advised as to any subsidence issues that exist within the boundaries of the District, however the District will respond to any future reports of subsidence within the District and may determine this management goal to be applicable in the future.

B. Addressing Recharge Enhancement – 31 TAC § 356.52(a)(1)(G) and Tex. Water Code § 36.1071(a)(7).

Recharge enhancement is not an appropriate goal for the District at this time. The District was confirmed by the voters in November 2012 and the costs

² *Identification of the Vulnerability of the Major and Minor Aquifers of Texas to Subsidence with Regard to Groundwater Pumping*, Texas Water Development Board Report, by Furnans, et. al., March 2017.

associated with recharge enhancement make such an effort cost-prohibitive for the District at this time.

C. Addressing Precipitation Enhancement – 31 TAC § 356.52(a)(1)(G) and Tex. Water Code § 36.1071(a)(7).

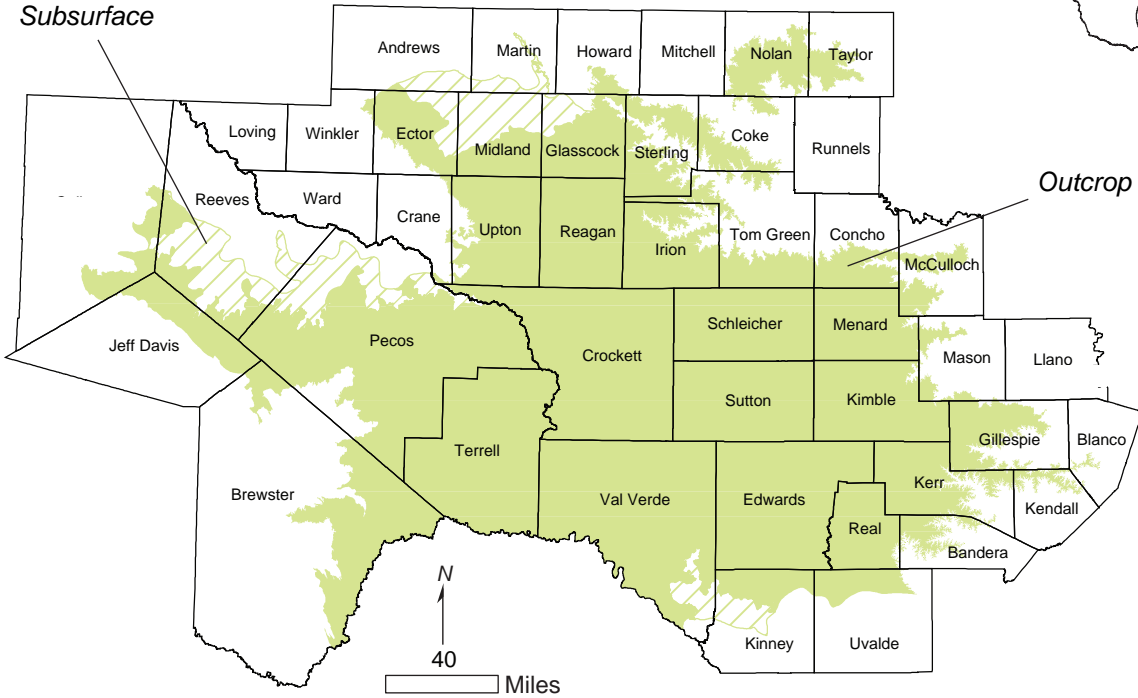
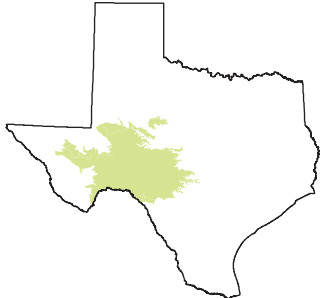
The District recognizes the significant expense associated with precipitation enhancement programs and is currently unable to develop a precipitation enhancement program for this reason.

APPENDICES LIST

- Appendix A Diagram of the Edwards Trinity (Plateau) Aquifer
- Appendix B Public Notices
- Appendix C Board Resolution Adopting Management Plan
- Appendix D Evidence of Coordination with Surface Water Management Entities
- Appendix E Information on Modeled Available Groundwater / Desired Future Conditions (31 TAC § 356.52(a)(5)(A) / Tex. Water Code § 36.1071(e)(3)(A))
- Appendix F Information on Water Use (31 TAC §§ 356.52(a)(5)(B) and 356.10(2) / Tex. Water Code § 36.1071(e)(3)(B))
- Appendix G Information in GAM Run 23-002 on Recharge, Volume of Water that Discharges to Surface Water, and Annual Volume of Flow Into the District, Out of the District, and Between Aquifers in the District (31 TAC § 356.52(a)(5)(C)-(E) / Tex. Water Code § 36.1071(e)(3)(C)-(E))
- Appendix H Information on Projected Surface Water Supplies (31 TAC § 356.52(a)(5)(F) / Tex. Water Code § 36.1071(e)(3)(F))
- Appendix I Information on Projected Total Demand for Water (31 TAC § 356.52(a)(5)(G) / Tex. Water Code § 36.1071(e)(3)(G))
- Appendix J Information on Water Supply Needs in the District (Tex. Water Code § 36.1071(e)(4))
- Appendix K District Rules

APPENDIX A

Edwards-Trinity (Plateau) Aquifer



APPENDIX B

**TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT
NOTICE OF PUBLIC HEARING ON
PROPOSED RE-ADOPTION OF DISTRICT MANAGEMENT PLAN**

The Terrell County Groundwater Conservation District (TCGCD) will hold a public hearing on the proposed re-adoption of the TCGCD's Groundwater Management Plan on Monday, August 14, 2023 at 1:00 P.M. at the Terrell County District Courtroom on the 2nd Floor of the Terrell County Courthouse, 105 East Hackberry, Sanderson, Texas 79848. All interested parties are invited to attend.

At the conclusion of the hearing or any time or date thereafter, the proposed management plan may be adopted in the form presented or as amended based upon comments received from the public, the Texas Water Development Board, District staff, attorneys, geoscientists, or members of the Board of Directors without any additional notice. Any person who desires to appear at the hearing and present public comments or other information on the proposed management plan may do so in person, by counsel, or both. Comments may be presented verbally or in written form.

A copy of the proposed TCGCD Management Plan may be requested by email to acooper@lglawfirm.com, or may be downloaded from TCGCD's website at <https://www.facebook.com/profile.php?id=100064696689134>. All questions or requests for additional information may be submitted to Ty Embrey by telephone at (512) 322-5829.

The TCGCD is committed to compliance with the Americans with Disabilities Act (ADA). Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please call (512) 322-5829 at least 24 hours in advance if accommodation is needed.

Filed for Record
Date: 07/24/2023
Time: 01:30 p. m.
/s/ Paoline Thompson
Terrell Co/District Court Clerk
Terrell County, TX

Pioneer Classifieds

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person at 210 N. Nelson, Fort Stockton, TX 79735 from 8 a.m. to 3 p.m. Call (432) 336-2281.
CANCELLATIONS — All ads may be canceled for the next publication until 12:00 (noon) on the Monday before publication.
ACCEPTANCE — The publisher wants to do everything that is possible within the confines of good taste and legal constraints to help you advertise your

product or service to the best advantage. We reserve the right to edit or reject any copy or insertion that does not meet our standards of acceptance. The Fort Stockton Pioneer does not run ads for anyone whose balance on previous ads is not current.
PAYMENT — Prepayment required on ALL word ads.
DISPLAY AD RATES — \$6.50 per column inch.

HELP WANTED HELP WANTED HELP WANTED HELP WANTED HELP WANTED HELP WANTED FOR SALE GARAGE SALE FOR RENT

Technology Service Associate (Fort Stockton)



West Texas Opportunities, Inc. (TRAX) is accepting applications for a **DRIVER FOR PUBLIC AND MEDICAL TRANSPORTATION** in Fort Stockton. Applicants must be at least 25 years old, have a high school diploma or GED, must have a good driving record, be well-organized, dependable, attend work as scheduled, and have a Texas Class C driver license in good standing. Applicants must obtain a Medical Examiner's Certificate at WTO, Inc. expense, before hiring and kept current thereafter. Ability to speak both English and Spanish is strongly preferred. Benefits package includes Incentive Bonus, company-paid medical, dental and life insurance, retirement plan, 16 paid holidays, 12 Annual Leave & 12 Sick Leave days per year. Driver will be trained in CPR/first aid training within 60 days of employment. Pre-employment substance abuse testing and criminal history check are conducted before hiring. **Application may be obtained from website at www.gowto.org or call Diane Cortez at 1-800-245-9028. Position open until filled. WTO, Inc. is an equal opportunity employer.**

CANE CORSO PUPPIES FOR SALE. FOR DAVIS AREA. LEAVE MESSAGE OR TEXT (361)218-6194

YARD SALE
173 G ST THURSDAY- FRIDAY JULY 20 - 21 7AM - ? LOTS OF MISCELLANEOUS

703 N DEES ST SATURDAY JULY 22 8AM - 5PM
TILLER, SHOP FAN, BARBECUE/SMOKER, LAWN CHAIRS, FOLDING CHAIRS, HUNTING EQUIPMENT, WILDLIFE PICTURES, CD'S, ALBUMS, NEW WORK BOOTS, MEAT GRINDER, MEN/WOMEN CLOTHING, MEN/WOMEN SHOES, NIKON CAMERA, LOTS OF SMALL ITEMS.

301 S. SAGE ST FRIDAY- SATURDAY JULY 21-22 8AM-1PM FURNITURE, CLOTHES, GOLF CLUBS, KITCHEN ITEMS, AND LOTS OF MISCELLANEOUS.

305 W 4TH ST FRIDAY- SATURDAY JULY 21-22, 8 AM - 1PM LOTS OF MISCELLANEOUS

INDOOR ESTATE SALE

400 S MENDEL ST THURSDAY- FRIDAY JULY 20-21 8AM-4PM
WASHER, DRYER, REFRIGERATOR, HOUSEHOLD ITEMS, YARD TOOLS, AND LOTS OF MISCELLANEOUS

2 BED 1 BATH MOBILE HOME W/ ENCLOSED FENCE, CENTRAL HEAT+ AIR, PARTLY FURNISHED, WASHER + DRYER INCLUDED. FOR MORE INFO CALL (432-290-2341)

4 R.V TRAILERS FOR RENT, NO BILLS PAYED AND NO DEPOSIT FOR MORE INFO CALL (432-290-6276) OR (432-290-9702)



Questions? Comments? Story Ideas? Let us know how we're doing.
THE FORT STOCKTON PIONEER
432-336-2281
www.fortstocktonpioneer.com

LOOKING FOR A JOB? CHECK THE CLASSIFIEDS



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Follow The Fort Stockton Pioneer on Twitter and you'll always know what's happening in town.
@FSPioneer



We are looking for **certified CDL drivers** with experience. Someone who is willing to drive overnight and well as someone during the day.
We offer competitive pay and we have 3 locations, Alpine, Pecos and Fort Stockton.
Please contact us at 432-837-7179 for more information

CLASSIFIEDS WORK! MAKE SURE TO CHECK THEM WEEKLY

Request for Competitive Proposals

As Construction Manager for Fort Stockton ISD, BTC will be receiving competitive proposals from trade contractors for the Fort Stockton Multi-Campus Security Fencing Project on Wednesday, August 2, 2023.

Competitive proposals will be received by BTC, 1450 N. Jim Wright Freeway, White Settlement, Texas until 2:00 PM, (local time) on Wednesday, August 2, 2023 via email to estimating@btcbuilds.com. Proposals will **NOT** be received after 2:00 PM.

The complete bidding documents for this project will be available in electronic, downloadable format for subcontractor and supplier use in preparing proposals for this project via SmartBidNet. Access to the bidding documents will be available through a link on the BTC website "www.btcbuilds.com" following the instructions under the "bidding" tab.

The Proposal Package Manual detailing specific work required and contractual obligations will be available with the bidding documents. BTC is not responsible for partial or incorrect information obtained from other bidding websites or plans rooms. Addenda will be posted on the SmartBidNet website only and registered proposers will receive a notification when addenda are posted. It is the responsibility of the proposers to obtain all of the addenda.

A pre-proposal meeting will be held on Friday, July 28, 2023 at 10:00 AM virtually via Teams Meeting for all interested proposers. This pre-proposal meeting is not mandatory, but highly recommended and proposers are responsible for all information discussed at the meeting.

TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT NOTICE OF PUBLIC HEARING ON PROPOSED RE-ADOPTION OF DISTRICT MANAGEMENT PLAN

The Terrell County Groundwater Conservation District (TCGCD) will hold a public hearing on the proposed re-adoption of the TCGCD's Groundwater Management Plan on Monday, August 14, 2023 at 1:00 P.M. at the Terrell County District Courtroom on the 2nd Floor of the Terrell County Courthouse, 105 East Hackberry, Sanderson, Texas 79848. All interested parties are invited to attend.

At the conclusion of the hearing or any time or date thereafter, the proposed management plan may be adopted in the form presented or as amended based upon comments received from the public, the Texas Water Development Board, District staff, attorneys, geoscientists, or members of the Board of Directors without any additional notice. Any person who desires to appear at the hearing and present public comments or other information on the proposed management plan may do so in person, by counsel, or both. Comments may be presented verbally or in written form.

A copy of the proposed TCGCD Management Plan may be requested by email to acooper@lglawfirm.com, or may be downloaded from TCGCD's website at <https://www.facebook.com/profile.php?id=100064696689134>. All questions or requests for additional information may be submitted to Ty Embrey by telephone at (512) 322-5829.

The TCGCD is committed to compliance with the Americans with Disabilities Act (ADA). Reasonable accommodations and equal opportunity for effective communications will be provided upon request. Please call (512) 322-5829 at least 24 hours in advance if accommodation is needed.

NOTICE TO BIDDERS

SEALED BIDS addressed to the Pecos County Auditor, Pecos County Courthouse, 103 W. Callaghan, Fort Stockton Texas, 79735. *Bid must be Sealed and Mailed or Hand Delivered ONLY.* Bids to be received and opened until 4:00 p.m., Wednesday, August 9, 2023, in the Pecos County Auditor's Office, for: **Installation of New Pump Station**, for the Irrigation System, at the Desert Pines Golf Course, Precinct #1, Fort Stockton, Texas 79735.

Note: Important Bid Details.
LABOR FOR IRRIGATION PUMP STATION

1. Pump Station will be bid separately from Irrigation System.
2. Pump Station Building and Slab will be built by Owner.
3. Wet Well and Intake shall be provided/built/installed by Irrigation Contractor.

THE PUMPING SYSTEM SHALL CONSIST OF THE FOLLOWING:

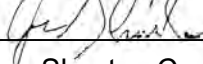
Three (3) 60 HP 3-phase 480-volt 60Hertz Vertical Turbine Pumps with 60 Hp VFD control, to deliver 1800gpm @15-120psi, with stainless steel impellers. Motors to operate 1800rpm.

For complete specifications concerning this bid contact Precinct 1 Commissioner Tom Chapman, 1574 Airport Dive, Fort Stockton, Texas 79735, (432) 336-6261.

Affirmative Action/EOE. Pecos County is an Affirmative Action/Equal Opportunity Employer. The Pecos County Commissioners Court reserves the right to reject any or all bids.

Bid will be awarded in Commissioners Court on Monday, August 14, 2023.

Bid must be marked individually **"Desert Pines Golf Course Pump Station"**.



Joe Shuster, County Judge

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PUBLISHER'S AFFIDAVIT

The State of Texas

County of Pecos

Before me, the undersigned authority, on this day personally appeared Shawn Yorks, who being by me duly sworn, states on oath that he/she is the Editor of The Fort Stockton Pioneer a newspaper published in Fort Stockton, Pecos County, Texas and generally circulated in Pecos County; and that the attached printed notice was published in Fort Stockton on the following dates:

July 20, 2023

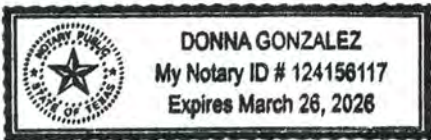
Shawn Yorks

Printed Name

Shawn Yorks

Signature

Sworn to and subscribed before me this 20th day of July 2023.



Donna Gonzalez

Notary Public in and for Pecos County, Texas

**NOTICE OF REGULAR MEETING, MANAGEMENT PLAN HEARING, AND
RULEMAKING HEARING
OF THE
TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT**

Monday, August 14, 2023 at 1:00 PM

A quorum of the Terrell County Groundwater Conservation District Board of Directors will hold a regular called Board meeting, Management Plan hearing, and rulemaking hearing on Monday, August 14, 2023 at 1:00 PM at the Terrell County District Courtroom on the 2nd Floor of the Terrell County Courthouse, 105 East Hackberry, Sanderson, Texas 79848.

Management Plan Hearing

1. Call to order, declare hearing open to the public, and take roll.
2. Discuss, consider, and receive public input on proposed re-adoption of Management Plan.
3. Adjourn hearing on Management Plan.

Rulemaking Hearing

1. Call to order, declare hearing open to the public, and take roll.
2. Discuss, consider, and receive public input on proposed amendments to District rules.
3. Adjourn rulemaking hearing.

Board Meeting Agenda

1. Call to order, declare meeting open to the public, and take roll.
2. Public comment (3 minute limit per person not to exceed 30 minutes total).
3. Discuss, consider, and act on minutes of the June 12, 2023 Regular Board Meeting.
4. Discuss, consider, and act on status of well registration and permit application processes.
5. Discuss, consider, and act on District financial and revenue issues, including:
 - a. Update on funds received from Terrell County Appraisal District Tax Assessor-Collector and District Bank accounts.
 - b. Payment of bills.
 - c. Budget for fiscal year 2024.
 - d. Tax rate for 2023 tax year.
 - e. Fiscal year 2023 financial audit.
6. Discuss, consider, and act on re-adoption of Management Plan and coordination with surface water management entities.
7. Discuss, consider, and act on adoption of revised District Rules.
8. Discuss, consider, and act on obtaining water quality samples from at least one well in the District.

9. Discuss, consider, and act on development of monitoring well network and conducting water level measurements from at least 50% of the wells in the network on an annual basis.
10. Discuss, consider, and act on Groundwater Management Area 7, Far West Texas (Region E) Regional Water Planning Group, and/or Texas Alliance of Groundwater Districts activities.
11. Discuss, consider, and act on pending Texas Water Development Board and/or Texas Commission on Environmental Quality matters.
12. Discuss, consider, and act on date, time, and new business for next meeting of Board of Directors.
13. Adjourn.

The above agenda schedule represents an estimate of the order for the indicated items and is subject to change at any time. These public meetings are available to all persons regardless of disability. If you require special assistance to attend the meeting, please call (512) 322-5829 at least 24 hours in advance of the meeting to coordinate any special physical access arrangements.

At any time during the meeting and in compliance with the Texas Open Meetings Act, Chapter 551, Government Code, Vernon's Texas Codes, Annotated, the Terrell County Groundwater Conservation District Board may meet in executive session on any of the above agenda items or other lawful items for consultation concerning attorney-client matters (§551.071); deliberation regarding real property (§551.072); deliberation regarding prospective gift (§551.073); personnel matters (§551.074); and deliberation regarding security devices (§551.076). Any subject discussed in executive session may be subject to action during an open meeting.

No. _____
FILED TIME 4:00pm

AUG 10 2023

CLERK, COUNTY COURT, TERRELL CO., TEXAS
BY: Deborah Gordon DEPUTY

APPENDIX C

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE
TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT
READOPTING DISTRICT GROUNDWATER MANAGEMENT PLAN**

STATE OF TEXAS

§

TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT

§

§

WHEREAS, the Terrell County Groundwater Conservation District (“District”) was created by Chapter 8837 of the Texas Special District Local Laws Code (Chapter 336, Acts of the 82nd Legislature (2011)) (“Enabling Act”) and under the authority of Section 59, Article XVI of the Texas Constitution and Chapter 36 of the Texas Water Code;

WHEREAS, the Board of Directors of the District (“Board”) originally adopted its Management Plan, in accordance with Sections 36.1071 and 36.1072 of the Texas Water Code and 31 Texas Administrative Code (“TAC”) Chapter 356, on July 25, 2013, which was approved by the Texas Water Development Board (“TWDB”) on November 21, 2013, and thereafter revised and readopted its Management Plan within five years as required by Section 36.1072(e) of the Texas Water Code on July 25, 2018, which was then approved by TWDB on October 12, 2018;

WHEREAS, pursuant to Section 36.1072 of the Texas Water Code and 31 TAC Section 356.51, the District is required to re-adopt its Management Plan, with or without revisions, at least once every five years and must thereafter re-submit the revised plan for TWDB approval pursuant to 31 TAC Sections 356.52 and 356.53;

WHEREAS, the District has made timely revisions to its Management Plan for re-adoption by the Board prior to the expiration of the five-year period;

WHEREAS, as part of the process of re-adopting its Management Plan, the District requested and received the assistance of the TWDB and worked with the TWDB staff to obtain the staff’s recommendations and comments on the revisions to its Management Plan;

WHEREAS, the Board and the District’s legal counsel reviewed and analyzed the District’s revised Management Plan and the technical information received from TWDB related to the Management Plan;

WHEREAS, the District issued notice in the manner required by state law and held a public hearing on August 14, 2023, to receive public and written comments on the Management Plan at the Terrell County District Courtroom on the 2nd Floor of the Terrell County Courthouse located at 105 East Hackberry, Sanderson, Texas 79848;

WHEREAS, the District will coordinate with the appropriate surface water management entities after the public hearing and readopting of its Management Plan to afford surface water management entities within the boundaries of the District the opportunity to review and provide comments to the District on its Management Plan;

WHEREAS, the Board finds that the revised Management Plan meets all of the requirements of Chapter 36, Texas Water Code and 31 TAC Chapter 356; and

WHEREAS, the Board met in a public meeting on August 14, 2023, properly noticed in accordance with appropriate law, after holding a public hearing on the attached revised Management Plan, considered the readoption of the Management Plan, and considered approval of this resolution.

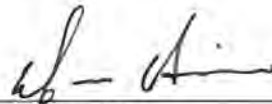
NOW, THEREFORE, BE IT RESOLVED THAT:

1. The above recitals are true and correct.
2. The Board of Directors hereby readopts the attached Management Plan as the Management Plan of the District, including any revisions made based on comments received from the public at the public hearing or Board meeting, or based on recommendations from the District Board, legal counsel, or TWDB.
3. The Board, legal counsel, and/or any District staff are further authorized to take all action necessary to implement this resolution and submit the revised Management Plan to the TWDB for its approval.
4. The Board, legal counsel, and/or any District staff are further authorized to take all action necessary to coordinate with the TWDB as may be required in furtherance of TWDB's approval pursuant to the provisions of Section 36.1072 of the Texas Water Code.

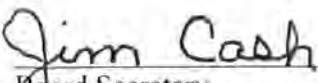
AND IT IS SO ORDERED.

PASSED AND ADOPTED on this 14 day of Aug, 2023.

TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT

By: 
Board President

ATTEST:


Board Secretary

APPENDIX D

Mr. Embrey's Direct Line: (512) 322-5829
Email: tembrey@lglawfirm.com

August 14, 2023

Mr. Tom Lowrance
Terrell County WCID No. 1
P.O. Box 569
Sanderson, TX 79848
tcwcid1@bigbend.net

RE: Terrell County Groundwater Conservation District Management Plan

Dear Mr. Lowrance:

Enclosed please find a copy of the revised Management Plan adopted by the Terrell County Groundwater Conservation District (the "District"). The District's mission is to conserve, preserve, and protect the quality and quantity of the groundwater resources for its citizens within Terrell County. The Texas Legislature created the District in 2011 and the voters of Terrell County confirmed the creation of the District on November 6, 2012.

The District submits the enclosed revised Management Plan to you pursuant to Section 36.1071(a) of the Texas Water Code and the Texas Water Development Board's Rules (Title 31 Texas Administrative Code, Section 356.51). The District asks for your review and comment as part of the District's effort to coordinate and seek input on the District's comprehensive groundwater management goals. The District's Board of Directors held a public hearing and subsequently adopted the enclosed revised Management Plan at its meeting held on August 14, 2023.

The District is committed to working with the Terrell County WCID No. 1 to manage the groundwater resources within its boundaries. Please contact me at (512) 322-5829 or tembrey@lglawfirm.com if you have any questions regarding the District's Management Plan or other District activities.

Sincerely,



Ty H. Embrey

Enclosure: Copy of District's Adopted Management Plan

cc: Mrs. Debbie Deaton, Board President
Terrell County Groundwater Conservation District

Mr. Embrey's Direct Line: (512) 322-5829
Email: tembrey@lglawfirm.com

August 14, 2023

Independence Creek Preserve / Lower Pecos
The Nature Conservancy
P.O. Box 150
Dryden, Texas 78551
Texas@TNC.ORG

RE: Terrell County Groundwater Conservation District Management Plan

To Whom It May Concern:

Enclosed please find a copy of the revised Management Plan adopted by the Terrell County Groundwater Conservation District (the "District"). The District's mission is to conserve, preserve, and protect the quality and quantity of the groundwater resources for its citizens within Terrell County. The Texas Legislature created the District in 2011 and the voters of Terrell County confirmed the creation of the District on November 6, 2012.

The District submits the enclosed revised Management Plan to you pursuant to Section 36.1071(a) of the Texas Water Code and the Texas Water Development Board's Rules (Title 31 Texas Administrative Code, Section 356.51). The District asks for your review and comment as part of the District's effort to coordinate and seek input on the District's comprehensive groundwater management goals. The District's Board of Directors held a public hearing and subsequently adopted the enclosed revised Management Plan at its meeting held on August 14, 2023.

The District is committed to working with The Nature Conservancy to manage the groundwater resources within its boundaries. Please contact me at (512) 322-5829 or tembrey@lglawfirm.com if you have any questions regarding the District's Management Plan or other District activities.

Sincerely,



Ty H. Embrey

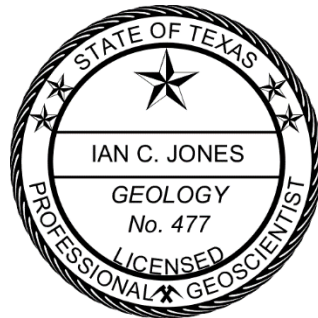
Enclosure: Copy of District's Adopted Management Plan

cc: Mrs. Debbie Deaton, Board President
Terrell County Groundwater Conservation District

APPENDIX E

**GAM RUN 21-012 MAG:
MODELED AVAILABLE GROUNDWATER FOR
THE AQUIFERS IN GROUNDWATER
MANAGEMENT AREA 7**

Ian C. Jones, Ph.D., P.G.
Texas Water Development Board
Groundwater Division
Groundwater Modeling Department
512-463-6641
August 12, 2022



A handwritten signature in blue ink, appearing to read "I. C. Jones", positioned to the right of the professional seal.

This page is intentionally left blank.

GAM RUN 21-012 MAG: MODELED AVAILABLE GROUNDWATER FOR THE AQUIFERS IN GROUNDWATER MANAGEMENT AREA 7

Ian C. Jones, Ph.D., P.G.
Texas Water Development Board
Groundwater Division
Groundwater Modeling Department
512-463-6641
August 12, 2022

EXECUTIVE SUMMARY:

The Texas Water Development Board (TWDB) has prepared estimates of the modeled available groundwater for the relevant aquifers of Groundwater Management Area 7—the Capitan Reef Complex, Dockum, Edwards-Trinity (Plateau), Ellenburger-San Saba, Hickory, Ogallala, Pecos Valley, Rustler, and Trinity aquifers. The estimates are based on the desired future conditions for these aquifers adopted by the groundwater conservation districts in Groundwater Management Area 7 on August 19, 2021. The explanatory reports and other materials submitted to the TWDB were determined to be administratively complete on February 23, 2022.

The modeled available groundwater values are summarized by decade for the groundwater conservation districts (Tables 1, 3, 5, 7, 9, 11, 13) and for use in the regional water planning process (Tables 2, 4, 6, 8, 10, 12, 14). The modeled available groundwater estimates for each decade from 2020 through 2070 are:

- 26,164 acre-feet per year in the Capitan Reef Complex Aquifer,
- 2,324 acre-feet per year in the Dockum Aquifer,
- 6,570 to 7,925 acre-feet per year in the Ogallala Aquifer,
- 479,063 acre-feet per year in the undifferentiated Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers,
- 22,616 acre-feet per year in the Ellenburger-San Saba Aquifer,
- 49,936 acre-feet per year in the Hickory Aquifer, and
- 7,040 acre-feet per year in the Rustler Aquifer.

The modeled available groundwater estimates were extracted from results of model runs using the groundwater availability models for the Capitan Reef Complex Aquifer [Version

1.01] (Jones, 2016) for the Capitan Reef Complex Aquifer; the High Plains Aquifer System [Version 1.01] (Deeds and Jigmond, 2015) for the Dockum and Ogallala aquifers; the minor aquifers of the Llano Uplift Area [Version 1.01] (Shi and others, 2016) for the Ellenburger-San Saba and Hickory aquifers, and the Rustler Aquifer [Version 1.01] (Ewing and others, 2012) for the Rustler Aquifer. In addition, the alternative 1-layer model for the Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers (Hutchison and others, 2011a) was used for the Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers, except for Kinney and Val Verde counties. In these two counties, the alternative Kinney County model (Hutchison and others, 2011b) and the model associated with a hydrogeological study for Val Verde County and the City of Del Rio (EcoKai and Hutchison, 2014), respectively, were used to estimate modeled available groundwater.

REQUESTOR:

Ms. Meredith Allen, coordinator of Groundwater Management Area 7 districts.

DESCRIPTION OF REQUEST:

In an email dated August 28, 2021, Dr. William Hutchison on behalf of Groundwater Management Area 7 provided the TWDB with the desired future conditions for the Capitan, Dockum, Ellenburger-San Saba, Hickory, Ogallala, and Rustler aquifers, as well as for the undifferentiated Edwards-Trinity (Plateau), Pecos Valley and Trinity aquifers, in Groundwater Management Area 7. Groundwater Management Area 7 provided additional clarifications through an email to the TWDB on November 12, 2021, for the assumptions and model files to be used to calculate modeled available groundwater.

The final adopted desired future conditions as stated in signed resolutions for the aquifers in Groundwater Management Area 7 are as follows:

Capitan Reef Complex Aquifer (*Resolution #08-19-2021-2*)

- | |
|---|
| <ul style="list-style-type: none">a) Total net drawdown of the Capitan Reef Complex Aquifer not to exceed 56 feet in Pecos County (Middle Pecos GCD) in 2070 as compared with 2006 aquifer levels.
<i>*(Reference: Scenario 4, GMA 7 Technical Memorandum 16-03)</i>b) The Capitan Reef Complex Aquifer is not relevant for joint planning purposes in all other areas of GMA 7. |
|---|

Dockum and Ogallala aquifers (Resolution #08-19-2021-5)

Ogallala Aquifer:

- a) Total net drawdown of the Ogallala Aquifer not to exceed **6 feet in Glasscock County** in 2070 as compared with 2010 aquifer levels.

Dockum Aquifer:

- b) Total net drawdown of the Dockum Aquifer not to exceed **52 feet in Pecos County** in 2070 as compared with 2010 aquifer levels.
- c) Total net drawdown of the Dockum Aquifer not to exceed **14 feet in Reagan County** in 2070 as compared with 2010 aquifer levels.

**(Reference items a) through c): Scenario 17, GMA 7 Technical Memorandum 16-01)*

- d) The Ogallala and Dockum Aquifers are not relevant for joint planning purposes in all other areas of GMA 7.

Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers (Resolution #08-19-2021-3)

- a) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **0 feet in Coke County** in 2070 as compared with 2010 aquifer levels.
- b) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **10 feet in Crockett County** in 2070 as compared with 2010 aquifer levels.
- c) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **4 feet in Ector County** in 2070 as compared with 2010 aquifer levels.
- d) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **2 feet in Edwards County** in 2070 as compared with 2010 aquifer levels.
- e) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **5 feet in Gillespie County** in 2070 as compared with 2010 aquifer levels.
- f) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **42 feet in Glasscock County** in 2070 as compared with 2010 aquifer levels.
- g) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **10 feet in Irion County** in 2070 as compared with 2010 aquifer levels.
- h) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **1 foot in Kimble County** in 2070 as compared with 2010 aquifer levels.
- i) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **1 foot in Menard County** in 2070 as compared with 2010 aquifer levels.
- j) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **12 feet in Midland County** in 2070 as compared with 2010 aquifer levels.
- k) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **14 feet in Pecos County** in 2070 as compared with 2010 aquifer levels.
- l) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **42 feet in Reagan County** in 2070 as compared with 2010 aquifer levels.
- m) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **4 feet in Real County** in 2070 as compared with 2010 aquifer levels.
- n) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **8 feet in Schleicher County** in 2070 as compared with 2010 aquifer levels.
- o) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **7 feet in Sterling County** in 2070 as compared with 2010 aquifer levels.
- p) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **6 feet in Sutton County** in 2070 as compared with 2010 aquifer levels.
- q) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **0 feet in Taylor County** in 2070 as compared with 2010 aquifer levels.
- r) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **2 feet in Terrell County** in 2070 as compared with 2010 aquifer levels.
- s) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **20 feet in Upton County** in 2070 as compared with 2010 aquifer levels.
- t) Total net drawdown of the Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers not to exceed **2 feet in Uvalde County** in 2070 as compared with 2010 aquifer levels.

*(Reference items a) through t): GMA 7 Technical Memorandum 18-01)

Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers (continued)

- u) Total net drawdown in **Kinney County** in 2070, as compared with 2010 aquifer levels, shall be consistent with maintenance of an annual average flow of 23.9 cfs and an annual median flow of **23.9 cfs at Las Moras Springs**.
**(Reference: Groundwater Flow Model of the Kinney County Area by W.R. Hutchison and others, 2011).*
- v) Total net drawdown in **Val Verde County** in 2070, as compared with 2010 aquifer levels, shall be consistent with maintenance of an average annual flow of **73-75 mgd at San Felipe Springs**.
**(Reference: EcoKai, 2014)*
- w) The Edwards-Trinity (Plateau), Pecos Valley, and Trinity Aquifers are not relevant for joint planning purposes in all other areas of GMA 7.

Minor Aquifers of the Llano Uplift Area (Resolution #08-19-2021-4)

Ellenburger-San Saba Aquifer:

- a) Total net drawdown of the Ellenburger-San Saba Aquifer not to exceed **8 feet in Gillespie County** in 2070 as compared with 2010 aquifer levels.
- b) Total net drawdown of the Ellenburger-San Saba Aquifer not to exceed **18 foot in Kimble County** in 2070 as compared with 2010 aquifer levels.
- c) Total net drawdown of the Ellenburger-San Saba Aquifer not to exceed **14 foot in Mason County** in 2070 as compared with 2010 aquifer levels.
- d) Total net drawdown of the Ellenburger-San Saba Aquifer not to exceed **29 feet in McCulloch County** in 2070 as compared with 2010 aquifer levels.
- e) Total net drawdown of the Ellenburger-San Saba Aquifer not to exceed **46 feet in Menard County** in 2070 as compared with 2010 aquifer levels.
- f) Total net drawdown of the Ellenburger-San Saba Aquifer not to exceed **5 feet in San Saba County** in 2070 as compared with 2010 aquifer levels.

Hickory Aquifer:

- g) Total net drawdown of the Hickory Aquifer not to exceed **53 feet in Concho County** in 2070 as compared with 2010 aquifer levels.
- h) Total net drawdown of the Hickory Aquifer not to exceed **9 feet in Gillespie County** in 2070 as compared with 2010 aquifer levels.
- i) Total net drawdown of the Hickory Aquifer not to exceed **18 feet in Kimble County** in 2070 as compared with 2010 aquifer levels.
- j) Total net drawdown of the Hickory Aquifer not to exceed **17 feet in Mason County** in 2070 as compared with 2010 aquifer levels.

Minor Aquifers of the Llano Uplift Area *(continued)*

- k) Total net drawdown of the Hickory Aquifer not to exceed **29 feet in McCulloch County** in 2070 as compared with 2010 aquifer levels.
- l) Total net drawdown of the Hickory Aquifer not to exceed **46 feet in Menard County** in 2070 as compared with 2010 aquifer levels.
- m) Total net drawdown of the Hickory Aquifer not to exceed **6 feet in San Saba County** in 2070 as compared with 2010 aquifer levels.
**(Reference items a) through m): Scenario 3, GMA 7 Technical Memorandum 16-02)*
- n) The Llano Uplift Region (Ellenburger-San Saba, Hickory, Marble Falls) Aquifers are not relevant for joint planning purposes in all other areas of GMA 7.

Rustler Aquifer *(Resolution #08-19-2021-6)*

- a) Total net drawdown of the Rustler Aquifer not to exceed **94 feet in Pecos County** in 2070 as compared with 2010 aquifer levels.
**(Reference: Scenario 4, GMA 7 Technical Memorandum 15-05)*
- b) The Rustler Aquifer not relevant for joint planning purposes in all other areas of GMA 7.

In addition to the non-relevant statements provided above in the individual resolutions, Groundwater Management Area 7 also provided additional non-relevant documentation dated August 27, 2021 and January 20, 2022 as part of their submittal to TWDB. The following aquifers or parts of aquifers are non-relevant for the purposes of joint planning:

- The entirety of the Blaine, Cross Timbers, Igneous, Lipan, Marble Falls, and Seymour aquifers.
- The Capitan Reef Complex Aquifer outside of the boundaries of the Middle Pecos Groundwater Conservation District.
- The Edwards-Trinity (Plateau) Aquifer in Concho, Mason, McCulloch, Nolan, and Tom Green counties.
- The Ellenburger-San Saba Aquifer in Coleman, Concho, and Mason counties.
- The Hickory Aquifer in Coleman and Llano counties.
- The Dockum Aquifer outside of Reagan and Pecos counties.
- The Ogallala Aquifer outside of Glasscock County.

CLARIFICATIONS:

In response to a request for clarifications from the TWDB in 2021, the Groundwater Management Area 7 Chair, Ms. Meredith Allen, and Groundwater Management Area 7 consultant, Dr. William R. Hutchison, provided the following clarifications regarding the definition of the desired future conditions. These clarifications were necessary for verifying that the desired future conditions of the aquifers were attainable and for confirming approval of the TWDB methodology to calculate modeled available groundwater volumes in Groundwater Management Area 7:

Capitan Reef Complex Aquifer

- The calculated modeled available groundwater values are based on the official TWDB aquifer boundary.
- The modeled available groundwater calculations are based on the desired future conditions with a one-foot tolerance (that is, modeled drawdown verifications within one foot of the desired future conditions are acceptable).
- Drawdown calculations used to define the desired future conditions value take into consideration the occurrence of “dry” cells, where water levels are below the base of the aquifer.

Dockum Aquifer

- The calculated modeled available groundwater values are based on the spatial extent of the Dockum Formation, as represented in the groundwater availability model for the High Plains Aquifer System, rather than the official TWDB aquifer boundary.
- Modeled available groundwater analysis excludes model pass-through cells.
- The modeled available groundwater calculations are based on the desired future conditions with a one-foot tolerance (that is, modeled drawdown verifications within one foot of the desired future conditions are acceptable).

Ogallala Aquifer

- The calculated modeled available groundwater values are based on the official TWDB aquifer boundary and use the same model assumptions used in Groundwater Management Area 7 Technical Memorandum 16-01 (Hutchison, 2016c).
- Drawdown calculations used to define the desired future conditions do not take into consideration the occurrence of “dry” cells, where water levels are below the base of the aquifer.

- The modeled available groundwater calculations are based on the desired future conditions with a one-foot tolerance (that is, modeled drawdown verifications within one foot of the desired future conditions are acceptable).

Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers

- The calculated modeled available groundwater values are based on the official TWDB aquifer boundaries.
- The modeled available groundwater calculations are based on the desired future conditions with a one-foot tolerance (that is, modeled drawdown verifications within one foot of the desired future conditions value are acceptable).
- Drawdown calculations used to define the desired future conditions include drawdowns for cells with water levels below the base elevation of the cell (“dry” cells).

Kinney County

- The modeled available groundwater values, model assumptions, and simulated springflow are from GAM Run 10-043 MAG Version 2 (Shi, 2012).

Val Verde County

- There is no associated drawdown as a desired future condition. The desired future condition is based solely on simulated spring flow conditions at San Felipe Spring of 73 to 75 million gallons per day. Pumping scenarios—50,000 acre-feet per year—in three well field locations and monthly hydrologic conditions for the historic period 1969 to 2012 meet the desired future conditions set by Groundwater Management Area 7 (EcoKai and Hutchison, 2014; Hutchison 2021).

Minor Aquifers of the Llano Uplift Area

- The calculated modeled available groundwater values are based on the full spatial extent of the Ellenburger-San Saba and Hickory formations in the groundwater availability model for the aquifers of the Llano Uplift Area rather than the official TWDB aquifer boundaries and use the same model assumptions used in Groundwater Management Area 7 Technical Memorandum 16-02 (Hutchison 2016b).
- The modeled available groundwater calculations are based on the desired future conditions with a one-foot tolerance (that is, modeled drawdown verifications within one foot of the desired future conditions value are acceptable).

- The drawdown calculations used to define desired future conditions did not include “dry” cells, where water levels are below the base of the aquifer.

Rustler Aquifer

- The model used to define desired future conditions and calculate modeled available groundwater assumes that the initial model heads represent the heads at the end of 2008 (the baseline for calculating desired future conditions drawdown values).
- Calculated modeled available groundwater values are based on the full spatial extent of the Rustler Formation, as represented in the groundwater availability model for the Rustler Aquifer, rather than the official TWDB aquifer boundary.
- The predictive model used to define desired future conditions and calculate modeled available groundwater uses the same model assumptions used in Groundwater Management Area 7 Technical Memorandum 15-05 (Hutchison, 2016d).
- The modeled available groundwater calculations are based on the desired future conditions with a one-foot tolerance (that is, modeled drawdown verifications within one foot of the desired future conditions value are acceptable).

METHODS:

As defined in Chapter 36 of the Texas Water Code (TWC, 2011), “modeled available groundwater” is the estimated average amount of water that may be produced annually to achieve a desired future condition. Groundwater conservation districts are required to consider modeled available groundwater, along with several other factors, when issuing permits to manage groundwater production to achieve the desired future condition(s). The other factors districts must consider include annual precipitation and production patterns, the estimated amount of pumping exempt from permitting, existing permits, and a reasonable estimate of actual groundwater production under existing permits.

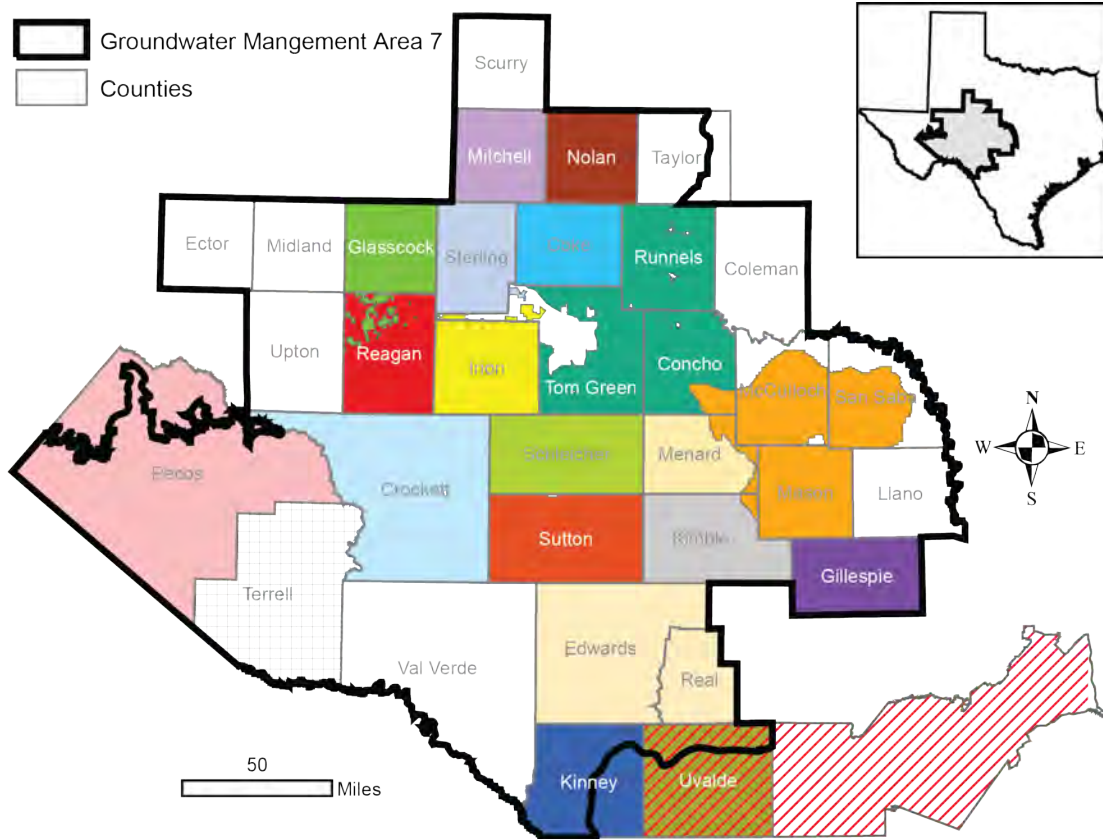
For relevant aquifers with desired future conditions based on water-level drawdown, water levels simulated at the end of the predictive simulations were compared to the water levels in the baseline year. These baseline years are 2005 in the groundwater availability model for the Capitan Reef Complex Aquifer and the alternative model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers, 2012 in the groundwater availability model for the High Plains Aquifer System, 2010 in the groundwater availability model for the minor aquifers of the Llano Uplift Area, and 2008 in the groundwater availability model for the Rustler Aquifer. The predictive model runs used average pumping rates from the historical period for the respective model except in the aquifer or area of interest. In those areas, pumping rates are varied until they produce drawdowns consistent with the adopted desired future conditions. In most cases, these model runs were supplied by Groundwater Management Area 7 for review by TWDB staff before they were used to calculate the modeled available groundwater. Pumping rates or modeled available groundwater are reported in 10-year intervals.

Water-level drawdown averages were calculated for the relevant portions of each aquifer. Drawdown for model cells that became dry during the simulation—when the water level dropped below the base of the cell—were excluded from the averaging. In Groundwater Management Area 7, dry cells only occur during the predictive period in the Ogallala Aquifer of Glasscock County. Consequently, estimates of modeled available groundwater decrease over time as continued simulated pumping predicts the development of increasing numbers of dry model cells in areas of the Ogallala Aquifer in Glasscock County. The calculated water-level drawdown averages for all aquifers were compared with the desired future conditions to verify that the pumping scenario achieved the desired future conditions.

In Kinney and Val Verde counties, the desired future conditions are based on discharge from selected springs. In these cases, spring discharge was estimated based on simulated average spring discharge over a historical period, maintaining all historical hydrologic conditions—such as recharge and river stage—except pumping. In other words, we

assume that past average hydrologic conditions—the range of fluctuation—will continue in the future. In the cases of Kinney and Val Verde counties, simulated spring discharge was based on hydrologic variations that took place over the periods 1950 through 2005 and 1968 through 2013, respectively. The desired future condition for the Edwards-Trinity (Plateau) Aquifer in Kinney County is similar to the one adopted in 2010 and the associated modeled available groundwater is based on a specific model run—GAM Run 10-043 (Shi, 2012).

Modeled available groundwater values for the Ellenburger-San Saba and Hickory aquifers were determined by extracting pumping rates by decade from the model results using ZONBUDUSG Version 1.01 (Panday and others, 2013). For the remaining relevant aquifers in Groundwater Management Area 7 modeled available groundwater values were determined by extracting pumping rates by decade from the model results using ZONEBUDGET Version 3.01 (Harbaugh, 2009). Decadal modeled available groundwater for the relevant aquifers is reported by groundwater conservation district and county (Figure 1; Tables 1, 3, 5, 7, 9, 11, 13), and by county, regional water planning area, and river basin (Figures 2 and 3; Tables 2, 4, 6, 8, 10, 12, 14).



Groundwater Conservation Districts

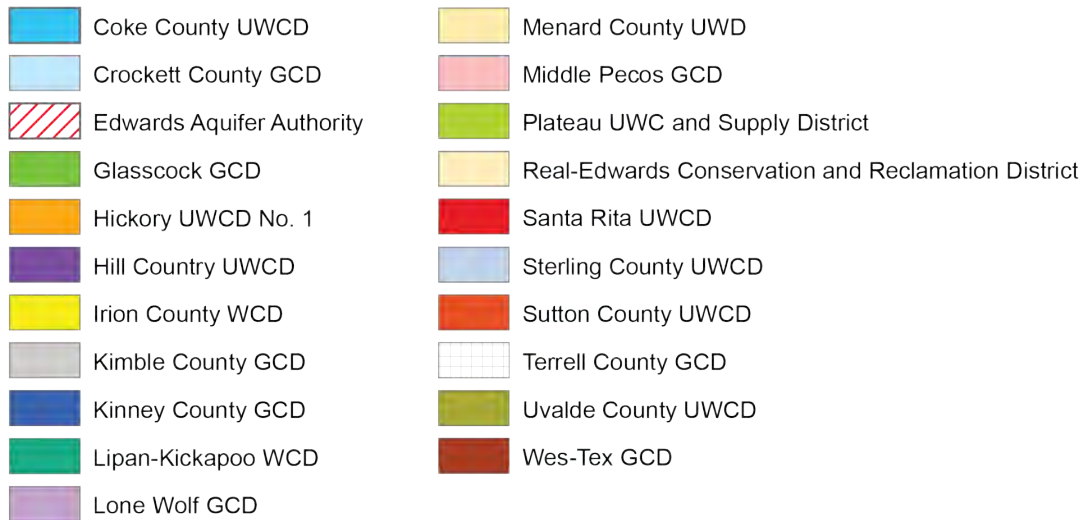


FIGURE 1. MAP SHOWING THE GROUNDWATER CONSERVATION DISTRICTS (GCD) IN GROUNDWATER MANAGEMENT AREA 7. NOTE: THE BOUNDARIES OF THE EDWARDS AQUIFER AUTHORITY OVERLAP WITH THE UVALDE COUNTY UNDERGROUND WATER CONSERVATION DISTRICT (UWCD).

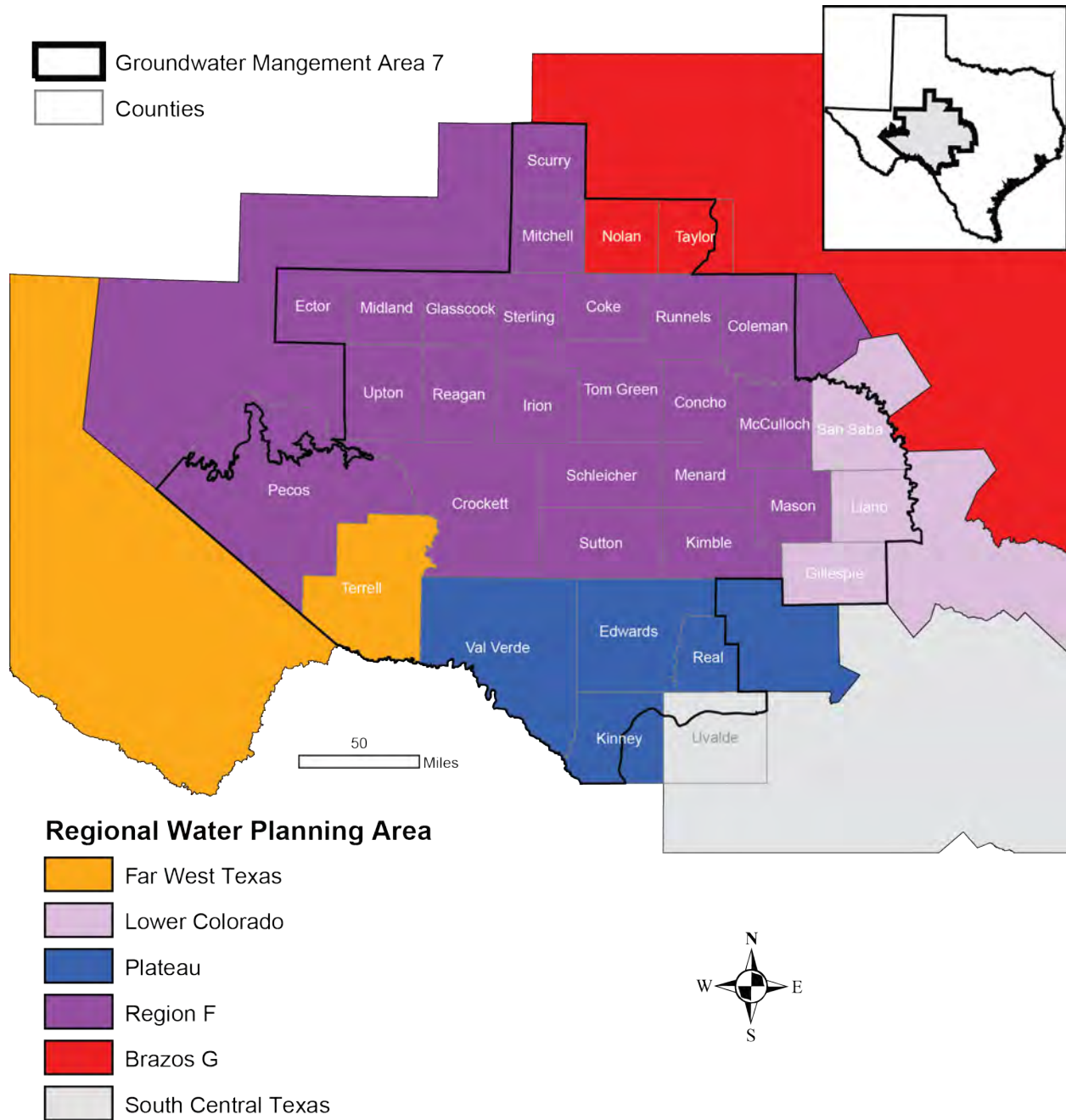


FIGURE 2. MAP SHOWING REGIONAL WATER PLANNING AREAS IN GROUNDWATER MANAGEMENT AREA 7.

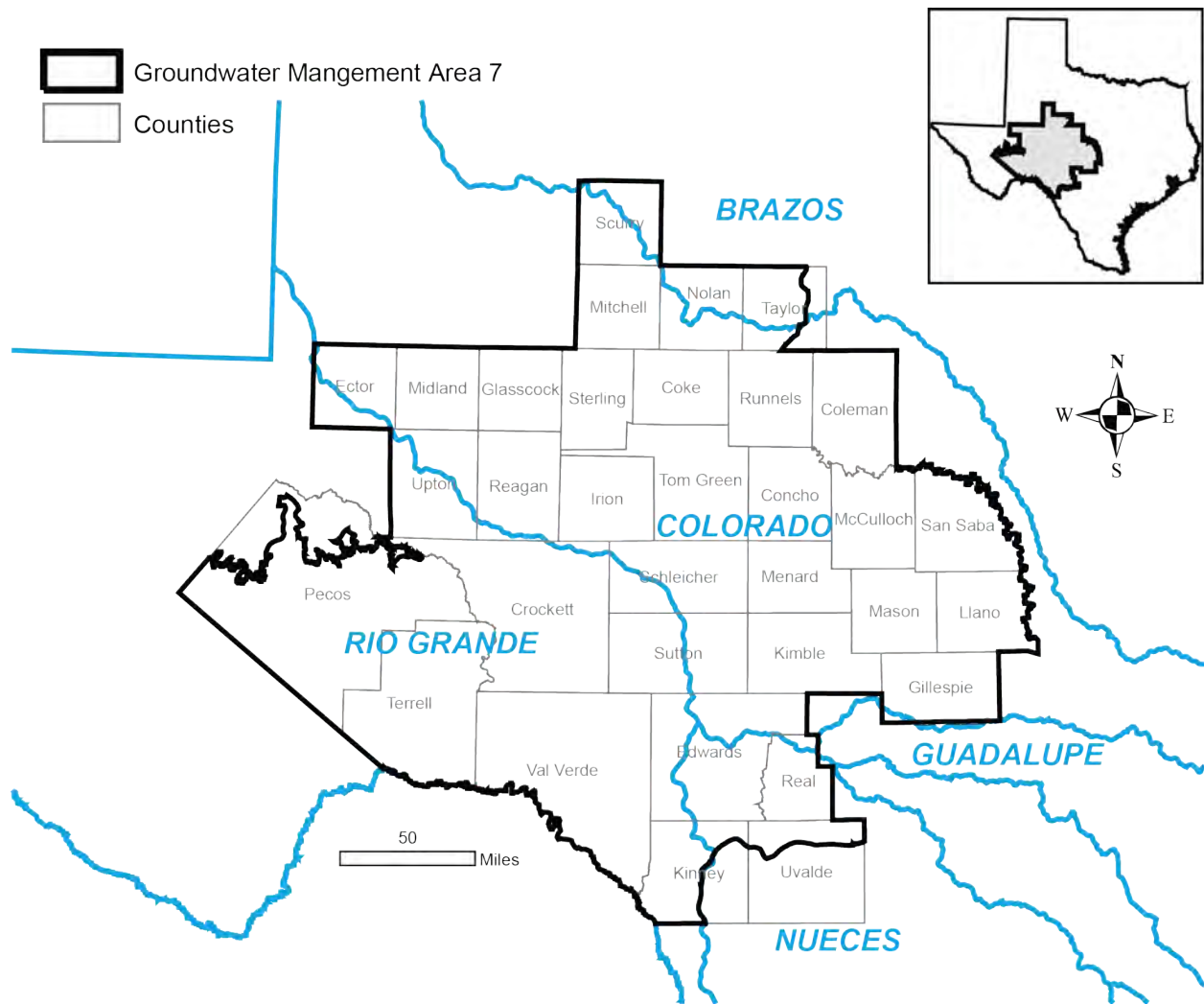


FIGURE 3. MAP SHOWING RIVER BASINS IN GROUNDWATER MANAGEMENT AREA 7. THESE INCLUDE PARTS OF THE BRAZOS, COLORADO, GUADALUPE, NUECES, AND RIO GRANDE RIVER BASINS.

PARAMETERS AND ASSUMPTIONS:

Capitan Reef Complex Aquifer

- Version 1.01 of the groundwater availability model of the eastern arm of the Capitan Reef Complex Aquifer was used. See Jones (2016) for assumptions and limitations of the groundwater availability model. See Hutchison (2016a) for details on the assumptions used for predictive simulations.
- The model has five layers: Layer 1, the Edwards-Trinity (Plateau) and Pecos Valley aquifers; Layer 2, the Dockum Aquifer and the Dewey Lake Formation; Layer 3, the Rustler Aquifer; Layer 4, a confining unit made up of the Salado and Castile formations, and the overlying portion of the Artesia Group; and Layer 5, the Capitan Reef Complex Aquifer, part of the Artesia Group, and the Delaware Mountain Group. Layers 1 through 4 are intended to act solely as boundary conditions facilitating groundwater inflow and outflow relative to the Capitan Reef Complex Aquifer (Layer 5).
- The model was run with MODFLOW-2000 (Harbaugh and others, 2000).
- The model was run for the interval 2006 through 2070 for a 64-year predictive simulation. Drawdowns were calculated by subtracting 2006 simulated water levels from 2070 simulated water levels, which were then averaged over the portion of the aquifer in Groundwater Management Area 7.
- During predictive simulations, there were no cells where water levels were below the base elevation of the cell ("dry" cells). Therefore, all drawdowns were included in the averaging.
- Drawdown averages and modeled available groundwater volumes are based on the official TWDB aquifer boundary within Groundwater Management Area 7.

Dockum and Ogallala Aquifers

- Version 1.01 of the groundwater availability model for the High Plains Aquifer System by Deeds and Jigmond (2015) was used to construct the predictive model simulation for this analysis. See Hutchison (2016c) for details of the initial assumptions.
- The model has four layers which represent the Ogallala and Pecos Valley Alluvium aquifers (Layer 1), the Edwards-Trinity (High Plains) and Edwards-Trinity (Plateau) aquifers (Layer 2), the Upper Dockum Aquifer (Layer 3), and the Lower Dockum Aquifer (Layer 4). Pass-through cells exist in layers 2 and 3 to hydraulically connect the Ogallala Aquifer to the Lower Dockum where the Edwards-Trinity (High Plains)

and Upper Dockum aquifers are absent. These pass-through cells were excluded from the calculations of drawdowns and modeled available groundwater.

- The model was run with MODFLOW-NWT (Niswonger and others, 2011). The model uses the Newton formulation and the upstream weighting package, which automatically reduces pumping as heads drop in a particular cell, as defined by the user. This feature may simulate the declining production of a well as saturated thickness decreases. Deeds and Jigmond (2015) modified the MODFLOW-NWT code to use a saturated thickness of 30 feet as the threshold—instead of percent of the saturated thickness—when pumping reductions occur during a simulation. Therefore, the groundwater management area should be aware that the modeled available groundwater values will be less than pumping input values if the modeled saturated thickness drops below that threshold.
- The model was run for the interval 2013 through 2070 for a 58-year predictive simulation. Drawdowns were calculated by subtracting initial water levels from 2070 simulated water levels, which were then averaged over the portion of the aquifer in Groundwater Management Area 7.
- During predictive simulations, there were no cells in the Dockum Aquifer where water levels were below the base elevation of the cell (“dry” cells). Therefore, all drawdowns were included in the averaging. However, in the Ogallala Aquifer, dry cells occurred during the predictive simulation. These dry cells were excluded from the modeled available groundwater calculations.
- Drawdown averages and modeled available groundwater volumes are based on the model boundary within Groundwater Management Area 7 for the Dockum Aquifer and the official TWDB aquifer boundary for the Ogallala Aquifer.

Pecos Valley, Edwards-Trinity (Plateau) and Trinity Aquifers

- The single-layer alternative groundwater flow model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers was used for this analysis. This model is an update to the previously developed groundwater availability model documented in Anaya and Jones (2009). See Hutchison and others (2011a) and Anaya and Jones (2009) for assumptions and limitations of the model. See Hutchison (2016e; 2018) for details on the assumptions used for predictive simulations.
- The groundwater model has one layer representing the Pecos Valley Aquifer and the Edwards-Trinity (Plateau) Aquifer. In the relatively narrow area where both aquifers are present, the model is a lumped representation of both aquifers.
- The model was run with MODFLOW-2000 (Harbaugh and others, 2000).

- The model was run for the interval 2006 through 2070 for a 65-year predictive simulation. Drawdowns were calculated by subtracting 2010 simulated water levels from 2070 simulated water levels, which were then averaged over the portion of the aquifer in Groundwater Management Area 7.
- Because simulated water levels for the baseline year (2010) are not included in the original calibrated historical model, these water levels had to be verified against measured water levels to confirm that the predictive model satisfactorily matched real-world conditions. Comparison of 2010 simulated and measured water levels indicated a root mean squared error of 100 feet or 4 percent of the range in water-level elevations, which is within acceptable limits. Based on these results, we consider the predictive model an appropriate tool for evaluating the attainability of desired future conditions and for calculating modeled available groundwater.
- Drawdowns for cells with water levels below the base elevation of the cell (“dry” cells) were included in the averaging.
- Drawdown averages and modeled available groundwater volumes are based on the official TWDB aquifer boundaries within Groundwater Management Area 7.

Edwards-Trinity (Plateau) Aquifer of Kinney County

- All parameters and assumptions for the Edwards-Trinity (Plateau) Aquifer of Kinney County in Groundwater Management Area 7 are described in GAM Run 10-043 MAG Version 2 (Shi, 2012). This report assumes a planning period from 2010 to 2070.
- The Kinney County Groundwater Conservation District model developed by Hutchison and others (2011b) was used for this analysis. The model was calibrated to water level and spring flux collected from 1950 to 2005.
- The model has four layers representing the following hydrogeologic units (from top to bottom): Carrizo-Wilcox Aquifer (Layer 1), Upper Cretaceous Unit (Layer 2), Edwards (Balcones Fault Zone) Aquifer/Edwards portion of the Edwards-Trinity (Plateau) Aquifer (Layer 3), and Trinity portion of the Edwards-Trinity (Plateau) Aquifer (Layer 4).
- The model was run with MODFLOW-2000 (Harbaugh and others, 2000).
- The model was run for 56 annual stress periods under the conditions set in Scenario 3 in Task 10-027 (Hutchison, 2011).
- Modeled available groundwater volumes are based on the official TWDB aquifer boundary within Groundwater Management Area 7 in Kinney County.

Edwards-Trinity (Plateau) Aquifer of Val Verde County

- The single-layer numerical groundwater flow model for the Edwards-Trinity (Plateau) Aquifer of Val Verde County was used for this analysis. This model is based on the previously developed alternative groundwater model of the Kinney County area documented in Hutchison and others (2011b). See EcoKai and Hutchison (2014) for assumptions and limitations of the model. See Hutchison (2016e; 2021) for details on the assumptions used for predictive simulations, including recharge and pumping assumptions.
- The groundwater model has one layer representing the Edwards-Trinity (Plateau) Aquifer of Val Verde County.
- The model was run with MODFLOW-2005 (Harbaugh, 2005).
- The model was run for a 45-year predictive simulation representing hydrologic conditions of the interval 1968 through 2013. Simulated spring discharge from San Felipe Springs was averaged over duration of the simulation. The resultant pumping rate that met the desired future conditions was applied to the predictive period—2010 through 2070—based on the assumption that average conditions over the predictive period are the same as those over the historic period represented by the model run.
- Modeled available groundwater volumes are based on the official TWDB aquifer boundary within Groundwater Management Area 7 in Val Verde County.

Minor aquifers of the Llano Uplift Area

- We used version 1.01 of the groundwater availability model for the minor aquifers in the Llano Uplift Area. See Shi and others (2016) for assumptions and limitations of the model. See Hutchison (2016b) for details of the initial assumptions.
- The model contains eight layers: Trinity Aquifer, Edwards-Trinity (Plateau) Aquifer, and younger alluvium deposits (Layer 1), confining units (Layer 2), Marble Falls Aquifer and equivalent units (Layer 3), confining units (Layer 4), Ellenburger-San Saba Aquifer and equivalent units (Layer 5), confining units (Layer 6), Hickory Aquifer and equivalent units (Layer 7), and Precambrian units (Layer 8).
- The model was run with MODFLOW-USG beta (development) version (Panday and others, 2013). Perennial rivers and reservoirs were simulated using the MODFLOW-USG river package. Springs were simulated using the MODFLOW-USG drain package.
- The model was run for the interval 2011 through 2070 for a 60-year predictive simulation. Drawdowns were calculated by subtracting initial water levels from 2070 simulated water levels, which were then averaged over the portion of the

aquifer in Groundwater Management Area 7. During predictive simulations, there were no cells where water levels were below the base elevation of the cell (“dry” cells). Therefore, all drawdowns were included in the averaging.

- Drawdown averages and modeled available groundwater volumes are based on the model boundaries within Groundwater Management Area 7.

Rustler Aquifer

- Version 1.01 of the groundwater availability model for the Rustler Aquifer by Ewing and others (2012) was used to construct the predictive model simulation for this analysis. See Hutchison (2016d) for details of the initial assumptions, including recharge conditions.
- The model has two layers, the top one representing the Rustler Aquifer, and the other representing the Dewey Lake Formation and the Dockum Aquifer.
- The model was run with MODFLOW-NWT (Niswonger and others, 2011).
- The model was run for the interval 2009 through 2070 for a 61-year predictive simulation. Drawdowns were calculated by subtracting 2009 simulated water levels from 2070 simulated water levels, which were then averaged over the portion of the aquifer in Groundwater Management Area 7.
- The predictive model used to define desired future conditions uses 2008 recharge conditions throughout the predictive period.
- The predictive model used to define desired future conditions has general-head boundary heads that decline at a rate of 1.5 feet per year.
- During predictive simulations, there were no cells where water levels were below the base elevation of the cell (“dry” cells). Therefore, all drawdowns were included in the averaging.
- Drawdown averages and modeled available groundwater volumes are based on the model boundaries within Groundwater Management Area 7.

RESULTS:

The modeled available groundwater estimates for each decade from 2020 through 2070 are:

- 26,164 acre-feet per year in the Capitan Reef Complex Aquifer,
- 2,324 acre-feet per year in the Dockum Aquifer,
- 6,570 to 7,925 acre-feet per year in the Ogallala Aquifer,

- 479,063 acre-feet per year in the undifferentiated Edwards-Trinity (Plateau), Pecos Valley, and Trinity aquifers,
- 22,616 acre-feet per year in the Ellenburger-San Saba Aquifer,
- 49,936 acre-feet per year in the Hickory Aquifer, and
- 7,040 acre-feet per year in the Rustler Aquifer.

The modeled available groundwater for the respective aquifers has been summarized by aquifer, county, and groundwater conservation district (Tables 1, 3, 5, 7, 9, 11, and 13). The modeled available groundwater is also summarized by county, regional water planning area, river basin, and aquifer for use in the regional water planning process (Tables 2, 4, 6, 8, 10, 12, and 14). The modeled available groundwater for the Ogallala Aquifer that achieves the desired future conditions adopted by districts in Groundwater Management Area 7 decreases from 7,925 to 6,570 acre-feet per year between 2020 and 2070 (Tables 5 and 6). This decline is attributable to the occurrence of increasing numbers of cells where water levels were below the base elevation of the cell (“dry” cells) in parts of Glasscock County. Please note that MODFLOW-NWT automatically reduces pumping as water levels decline.

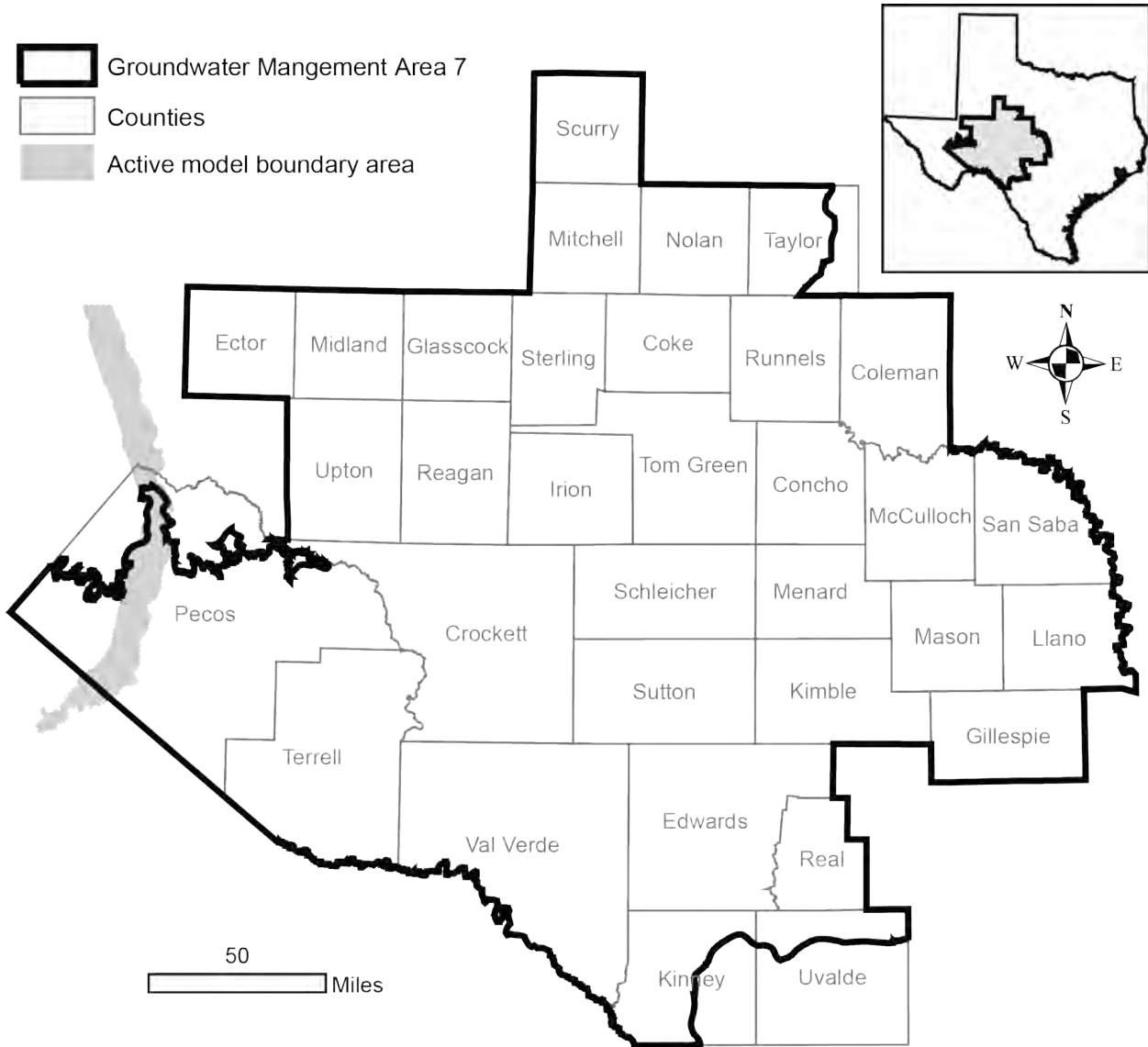


FIGURE 4. MAP SHOWING THE AREAS COVERED BY THE CAPITAN REEF COMPLEX AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE EASTERN ARM OF THE CAPITAN REEF COMPLEX AQUIFER IN GROUNDWATER MANAGEMENT AREA 7.

TABLE 2. MODELED AVAILABLE GROUNDWATER FOR THE CAPITAN REEF COMPLEX AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN FOR EACH DECADE BETWEEN 2030 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Pecos	F	Rio Grande	26,164	26,164	26,164	26,164	26,164
		Total	26,164	26,164	26,164	26,164	26,164
GMA 7			26,164	26,164	26,164	26,164	26,164

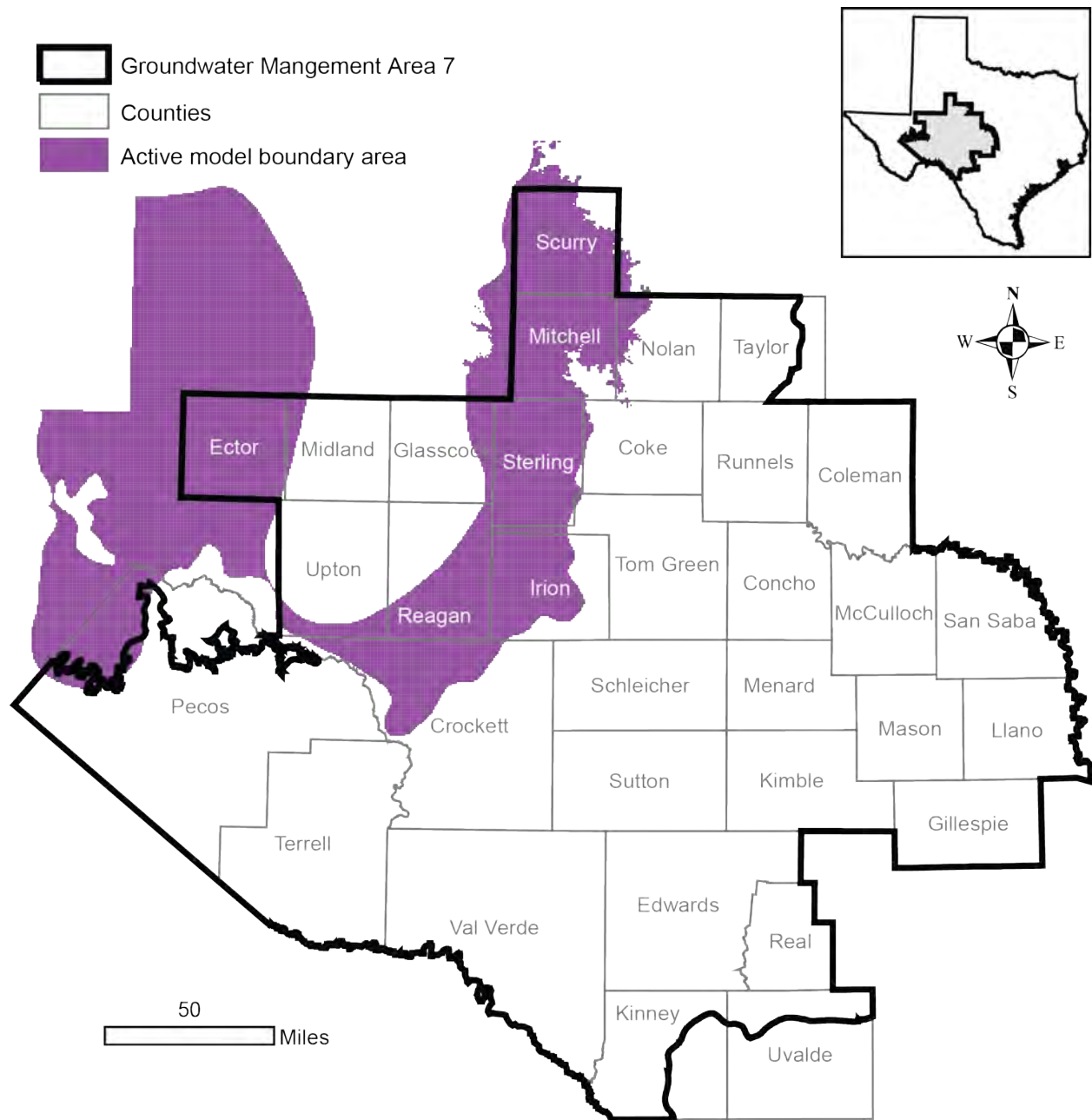


FIGURE 5. MAP SHOWING AREAS COVERED BY THE DOCKUM AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE HIGH PLAINS AQUIFER SYSTEM IN GROUNDWATER MANAGEMENT AREA 7.

TABLE 3. MODELED AVAILABLE GROUNDWATER FOR THE DOCKUM AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY GROUNDWATER CONSERVATION DISTRICT AND COUNTY FOR EACH DECADE BETWEEN 2020 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR. GCD AND UWCD ARE THE ABBREVIATIONS FOR GROUNDWATER CONSERVATION DISTRICT AND UNDERGROUND WATER CONSERVATION DISTRICT, RESPECTIVELY.

District	County	Year					
		2020	2030	2040	2050	2060	2070
Middle Pecos GCD	Pecos	2,022	2,022	2,022	2,022	2,022	2,022
	Total	2,022	2,022	2,022	2,022	2,022	2,022
Santa Rita UWCD	Reagan	302	302	302	302	302	302
	Total	302	302	302	302	302	302
GMA 7		2,324	2,324	2,324	2,324	2,324	2,324
Note: The modeled available groundwater for Santa Rita Underground Water Conservation District excludes parts of Reagan County that fall within Glasscock Groundwater Conservation District.							

TABLE 4. MODELED AVAILABLE GROUNDWATER FOR THE DOCKUM AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN FOR EACH DECADE BETWEEN 2030 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Pecos	F	Rio Grande	2,022	2,022	2,022	2,022	2,022
		Total	2,022	2,022	2,022	2,022	2,022
Reagan	F	Colorado	302	302	302	302	302
		Rio Grande	0	0	0	0	0
		Total	302	302	302	302	302
GMA 7			2,324	2,324	2,324	2,324	2,324
Note: The modeled available groundwater for Reagan County excludes parts of Reagan County that fall outside of Santa Rita Underground Water Conservation District.							

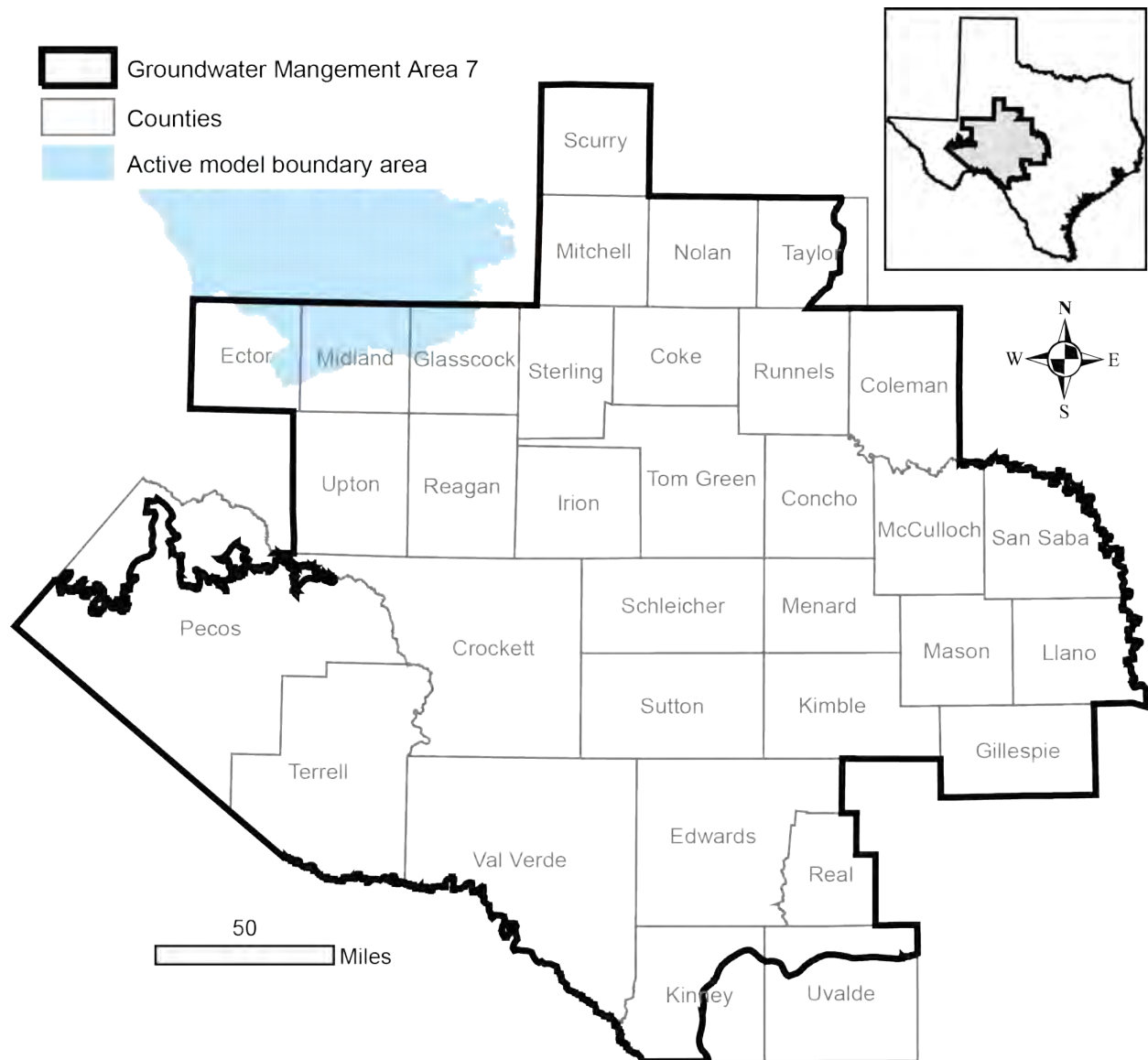


FIGURE 6. MAP SHOWING THE AREAS COVERED BY THE OGALLALA AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE HIGH PLAINS AQUIFER SYSTEM IN GROUNDWATER MANAGEMENT AREA 7.

TABLE 5. MODELED AVAILABLE GROUNDWATER FOR THE OGALLALA AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY GROUNDWATER CONSERVATION DISTRICT (GCD) AND COUNTY FOR EACH DECADE BETWEEN 2020 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

District	County	Year					
		2020	2030	2040	2050	2060	2070
Glasscock GCD	Glasscock	7,925	7,673	7,372	7,058	6,803	6,570
	Total	7,925	7,673	7,372	7,058	6,803	6,570
GMA 7		7,925	7,673	7,372	7,058	6,803	6,570

TABLE 6. MODELED AVAILABLE GROUNDWATER FOR THE OGALLALA AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN FOR EACH DECADE BETWEEN 2030 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Glasscock	F	Colorado	7,673	7,372	7,058	6,803	6,570
		Total	7,673	7,372	7,058	6,803	6,570
GMA 7			7,673	7,372	7,058	6,803	6,570

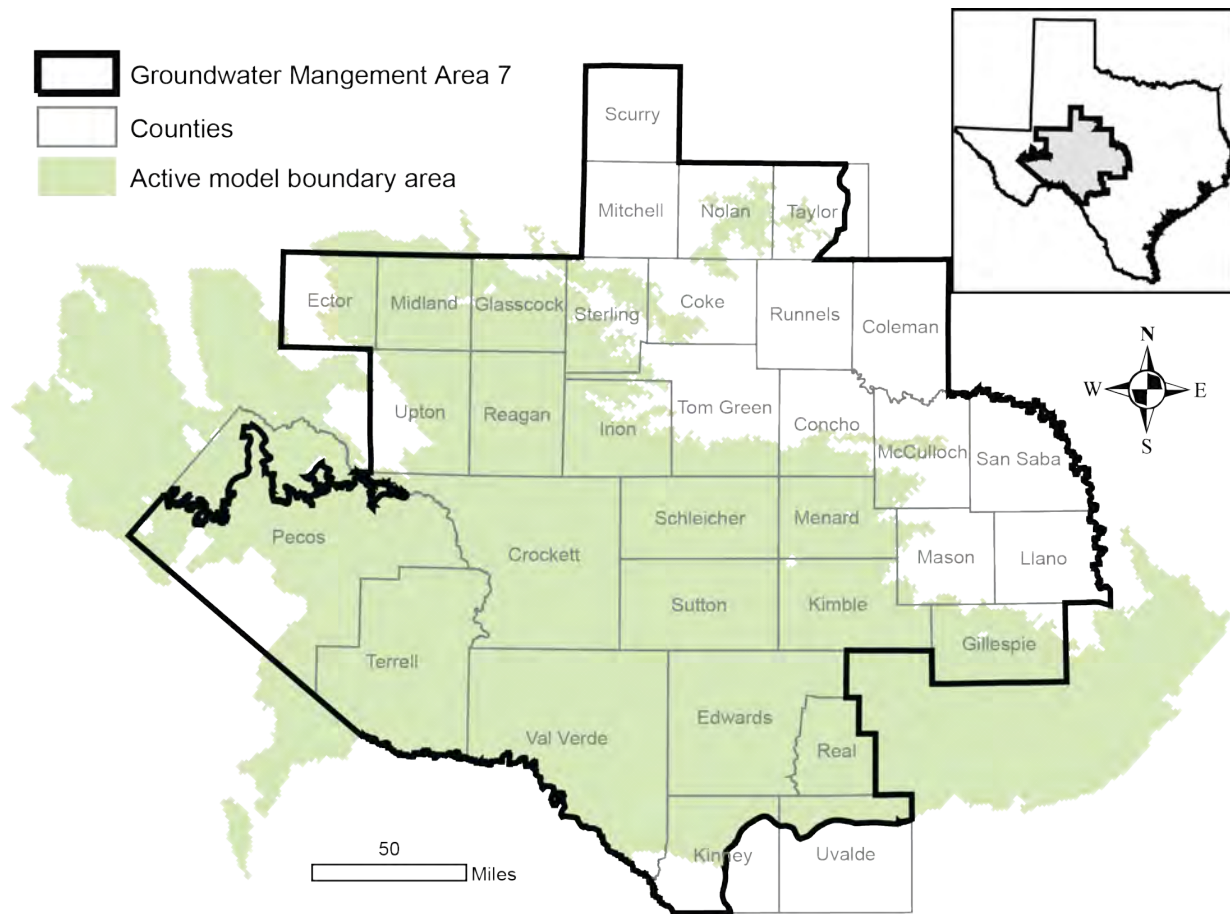


FIGURE 7. MAP SHOWING THE AREAS COVERED BY THE UNDIFFERENTIATED EDWARDS-TRINITY (PLATEAU), PECOS VALLEY, AND TRINITY AQUIFERS IN THE GROUNDWATER AVAILABILITY MODEL FOR THE EDWARDS-TRINITY (PLATEAU) AND PECOS VALLEY AQUIFERS IN GROUNDWATER MANAGEMENT AREA 7.

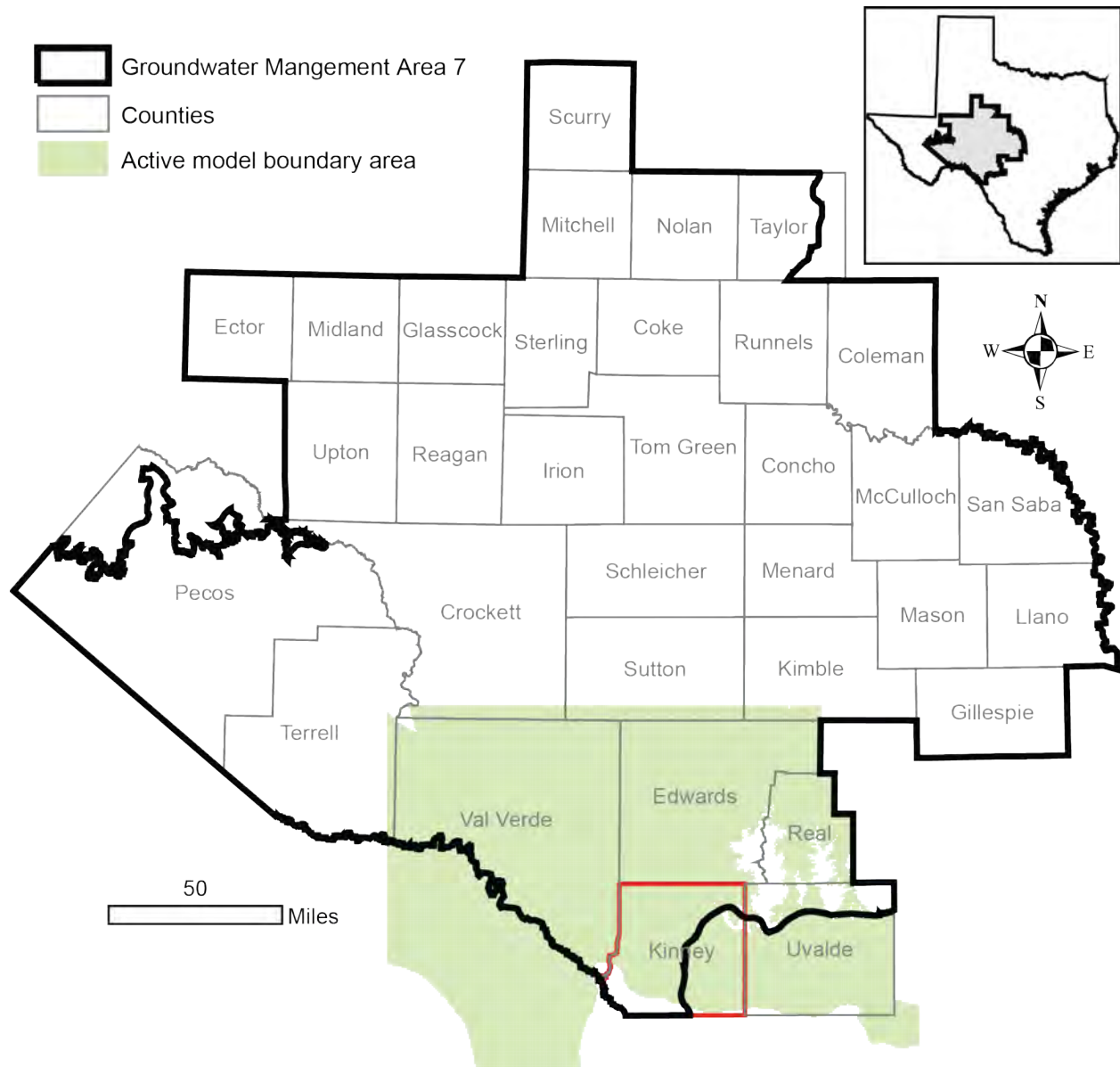


FIGURE 8. MAP SHOWING THE AREAS COVERED BY THE EDWARDS-TRINITY (PLATEAU) AQUIFER IN THE ALTERNATIVE MODEL FOR THE EDWARDS-TRINITY (PLATEAU) AQUIFER IN KINNEY COUNTY [HIGHLIGHTED IN RED].

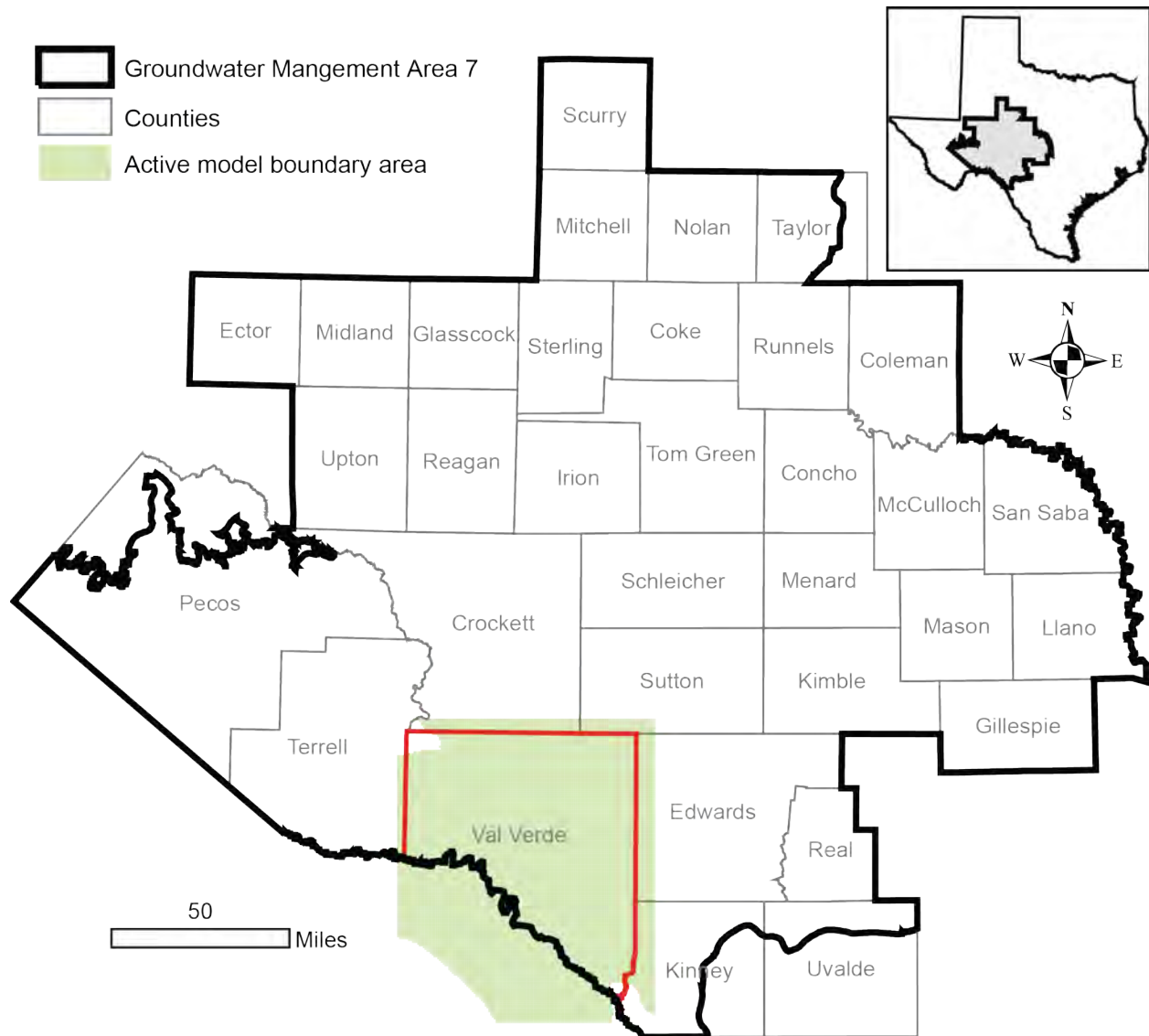


FIGURE 9. MAP SHOWING THE AREAS COVERED BY THE EDWARDS-TRINITY (PLATEAU) AQUIFER IN THE GROUNDWATER FLOW MODEL FOR THE EDWARDS-TRINITY (PLATEAU) AQUIFER IN VAL VERDE COUNTY [HIGHLIGHTED IN RED].

TABLE 8. MODELED AVAILABLE GROUNDWATER BY DECADE FOR THE UNDIFFERENTIATED EDWARDS-TRINITY (PLATEAU), PECOS VALLEY, AND TRINITY AQUIFERS IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN FOR EACH DECADE BETWEEN 2030 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Coke	F	Colorado	997	997	997	997	997
		Total	997	997	997	997	997
Crockett	F	Colorado	20	20	20	20	20
		Rio Grande	5,427	5,427	5,427	5,427	5,427
		Total	5,447	5,447	5,447	5,447	5,447
Ector	F	Colorado	4,925	4,925	4,925	4,925	4,925
		Rio Grande	617	617	617	617	617
		Total	5,542	5,542	5,542	5,542	5,542
Edwards	J	Colorado	2,305	2,305	2,305	2,305	2,305
		Nueces	1,631	1,631	1,631	1,631	1,631
		Rio Grande	1,740	1,740	1,740	1,740	1,740
		Total	5,676	5,676	5,676	5,676	5,676
Gillespie	K	Colorado	4,843	4,843	4,843	4,843	4,843
		Guadalupe	136	136	136	136	136
		Total	4,979	4,979	4,979	4,979	4,979
Glasscock	F	Colorado	65,186	65,186	65,186	65,186	65,186
		Total	65,186	65,186	65,186	65,186	65,186

TABLE 8. (CONTINUED).

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Irion	F	Colorado	3,289	3,289	3,289	3,289	3,289
		Total	3,289	3,289	3,289	3,289	3,289
Kimble	F	Colorado	1,386	1,386	1,386	1,386	1,386
		Total	1,386	1,386	1,386	1,386	1,386
Kinney	J	Nueces	12	12	12	12	12
		Rio Grande	70,329	70,329	70,329	70,329	70,329
		Total	70,341	70,341	70,341	70,341	70,341
Menard	F	Colorado	2,597	2,597	2,597	2,597	2,597
		Total	2,597	2,597	2,597	2,597	2,597
Midland	F	Colorado	23,233	23,233	23,233	23,233	23,233
		Total	23,233	23,233	23,233	23,233	23,233
Pecos	F	Rio Grande	117,309	117,309	117,309	117,309	117,309
		Total	117,309	117,309	117,309	117,309	117,309

TABLE 8. (CONTINUED).

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Reagan	F	Colorado	68,205	68,205	68,205	68,205	68,205
		Rio Grande	28	28	28	28	28
		Total	68,233	68,233	68,233	68,233	68,233
Real	J	Colorado	277	277	277	277	277
		Guadalupe	3	3	3	3	3
		Nueces	7,243	7,243	7,243	7,243	7,243
		Total	7,523	7,523	7,523	7,523	7,523
Schleicher	F	Colorado	6,403	6,403	6,403	6,403	6,403
		Rio Grande	1,631	1,631	1,631	1,631	1,631
		Total	8,034	8,034	8,034	8,034	8,034
Sterling	F	Colorado	2,495	2,495	2,495	2,495	2,495
		Total	2,495	2,495	2,495	2,495	2,495
Sutton	F	Colorado	388	388	388	388	388
		Rio Grande	6,022	6,022	6,022	6,022	6,022
		Total	6,410	6,410	6,410	6,410	6,410
Taylor	G	Brazos	331	331	331	331	331
		Colorado	158	158	158	158	158
		Total	489	489	489	489	489
Terrell	E	Rio Grande	1,420	1,420	1,420	1,420	1,420
		Total	1,420	1,420	1,420	1,420	1,420

TABLE 8. (CONTINUED).

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Upton	F	Colorado	21,243	21,243	21,243	21,243	21,243
		Rio Grande	1,126	1,126	1,126	1,126	1,126
		Total	22,369	22,369	22,369	22,369	22,369
Uvalde	L	Nueces	1,993	1,993	1,993	1,993	1,993
		Total	1,993	1,993	1,993	1,993	1,993
Val Verde	J	Rio Grande	50,000	50,000	50,000	50,000	50,000
		Total	50,000	50,000	50,000	50,000	50,000
GMA 7			479,063	479,063	479,063	479,063	479,063

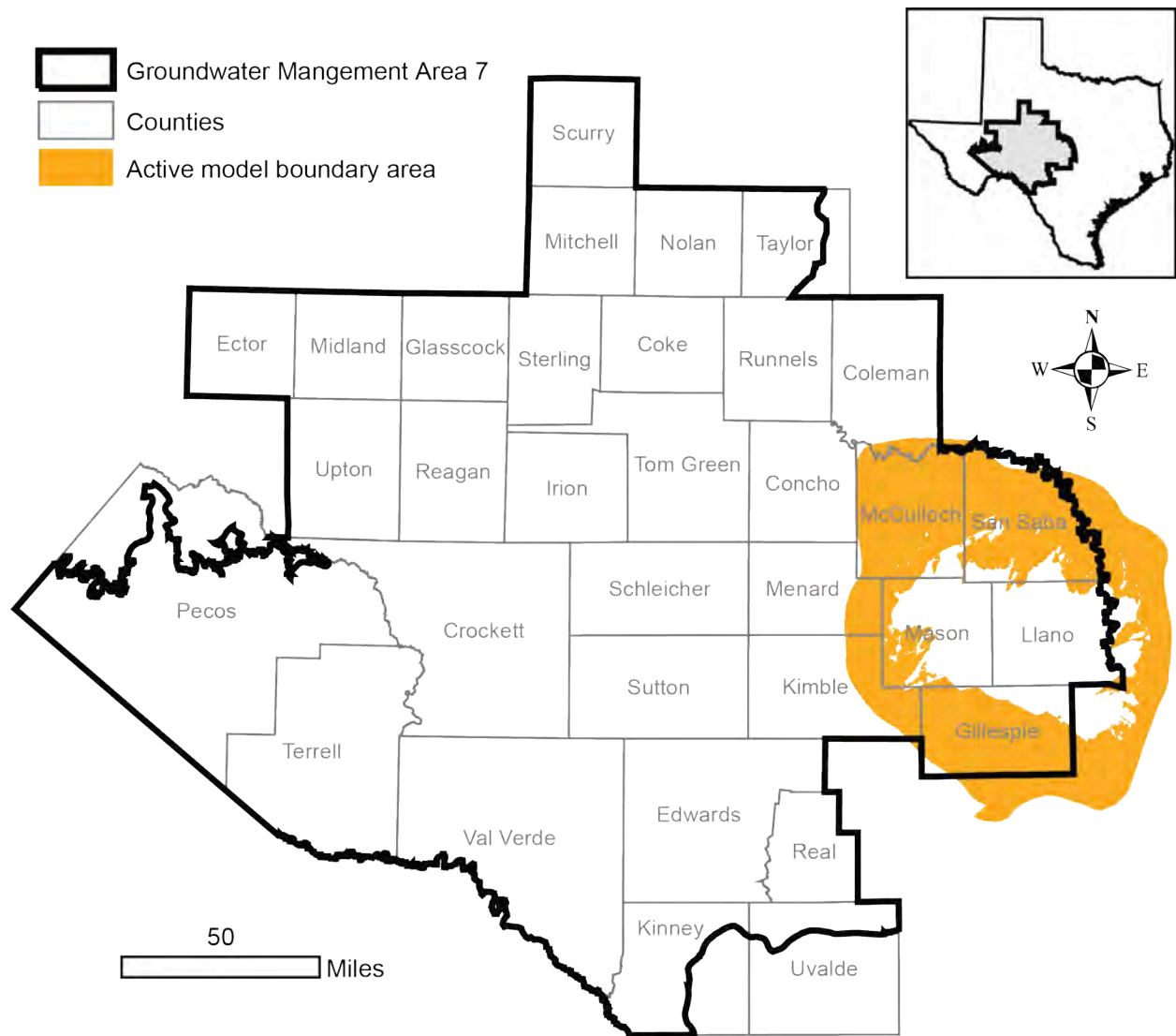


FIGURE 10. MAP SHOWING THE AREAS COVERED BY THE ELLENBURGER-SAN SABA AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE MINOR AQUIFERS OF THE LLANO UPLIFT AREA IN GROUNDWATER MANAGEMENT AREA 7.

TABLE 10. MODELED AVAILABLE GROUNDWATER FOR THE ELLENBURGER-SAN SABA AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN FOR EACH DECADE BETWEEN 2030 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Gillespie	K	Colorado	6,294	6,294	6,294	6,294	6,294
		Total	6,294	6,294	6,294	6,294	6,294
Kimble	F	Colorado	521	521	521	521	521
		Total	521	521	521	521	521
Mason	F	Colorado	3,237	3,237	3,237	3,237	3,237
		Total	3,237	3,237	3,237	3,237	3,237
McCulloch	F	Colorado	4,364	4,364	4,364	4,364	4,364
		Total	4,364	4,364	4,364	4,364	4,364
Menard	F	Colorado	309	309	309	309	309
		Total	309	309	309	309	309
San Saba	K	Colorado	7,890	7,890	7,890	7,890	7,890
		Total	7,890	7,890	7,890	7,890	7,890
GMA 7			22,615	22,615	22,615	22,615	22,615

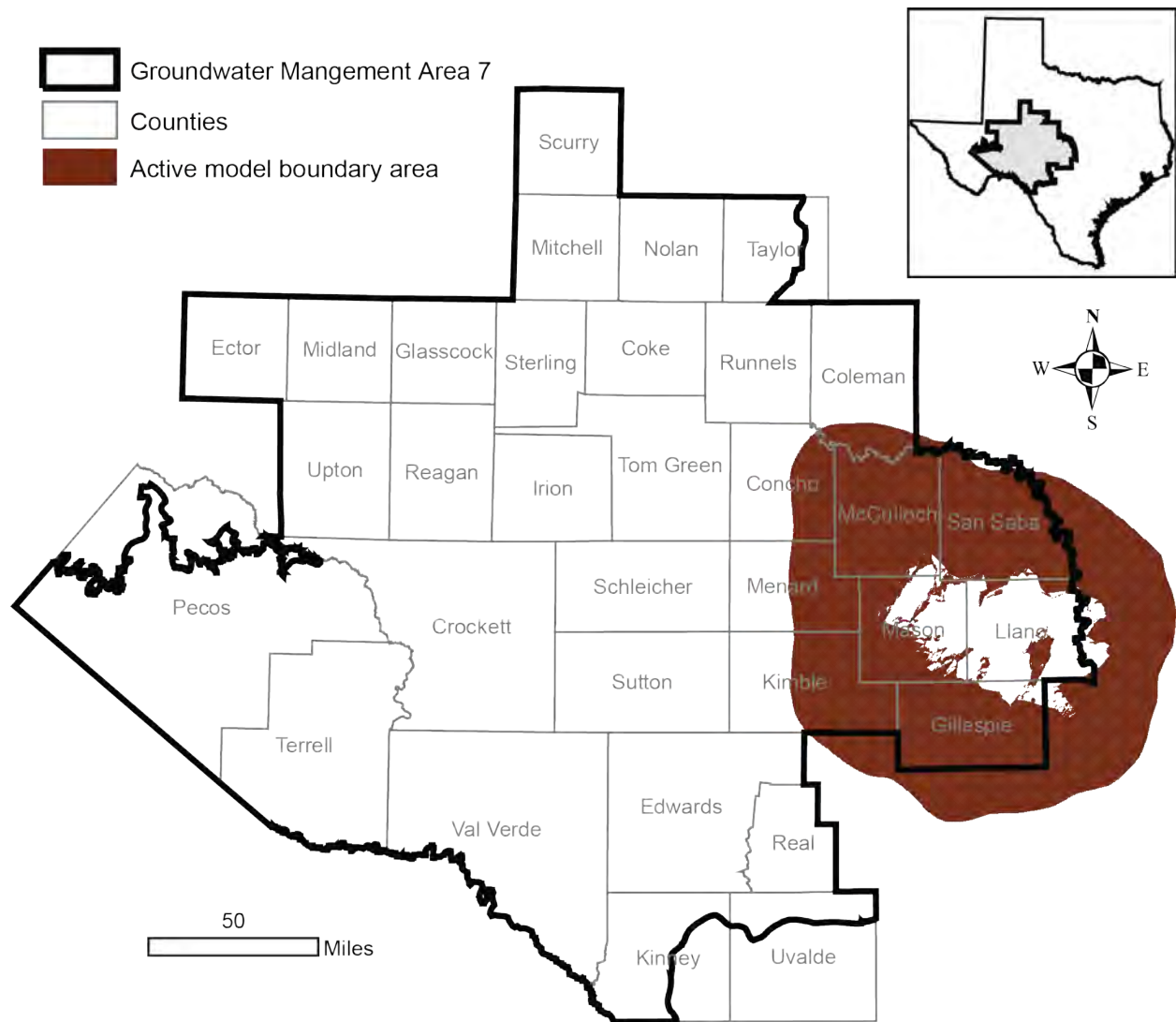


FIGURE 11. MAP SHOWING AREAS COVERED BY THE HICKORY AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE MINOR AQUIFERS OF THE LLANO UPLIFT AREA IN GROUNDWATER MANAGEMENT AREA 7.

TABLE 12. MODELED AVAILABLE GROUNDWATER FOR THE HICKORY AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN FOR EACH DECADE BETWEEN 2030 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Concho	F	Colorado	27	27	27	27	27
		Total	27	27	27	27	27
Gillespie	K	Colorado	1,751	1,751	1,751	1,751	1,751
		Total	1,751	1,751	1,751	1,751	1,751
Kimble	F	Colorado	165	165	165	165	165
		Total	165	165	165	165	165
Mason	F	Colorado	13,212	13,212	13,212	13,212	13,212
		Total	13,212	13,212	13,212	13,212	13,212
McCulloch	F	Colorado	24,377	24,377	24,377	24,377	24,377
		Total	24,377	24,377	24,377	24,377	24,377
Menard	F	Colorado	2,725	2,725	2,725	2,725	2,725
		Total	2,725	2,725	2,725	2,725	2,725
San Saba	K	Colorado	7,680	7,680	7,680	7,680	7,680
		Total	7,680	7,680	7,680	7,680	7,680
GMA 7			49,937	49,937	49,937	49,937	49,937

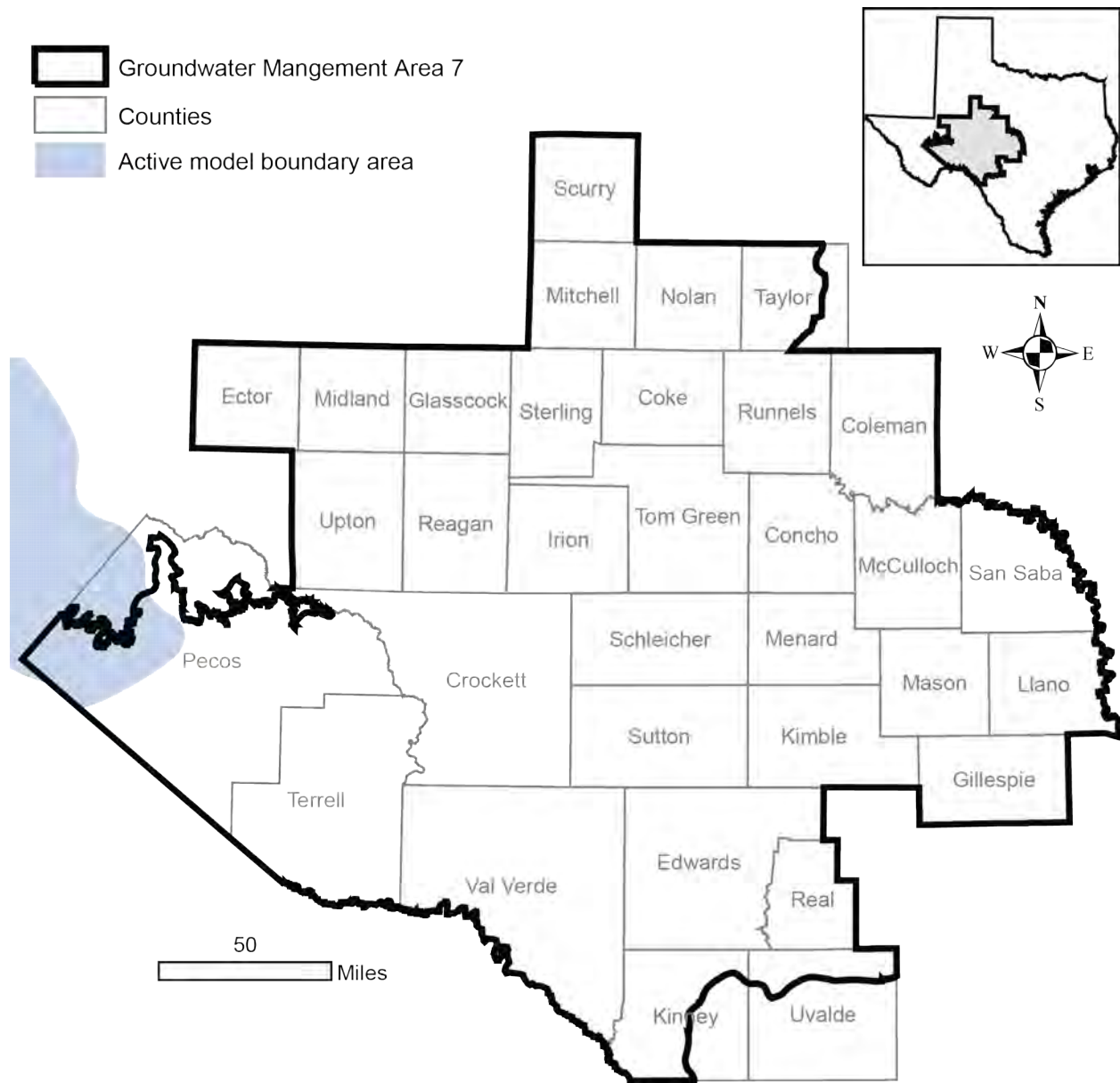


FIGURE 13. MAP SHOWING AREAS COVERED BY THE RUSTLER AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE RUSTLER AQUIFER IN GROUNDWATER MANAGEMENT AREA 7.

TABLE 13. MODELED AVAILABLE GROUNDWATER FOR THE RUSTLER AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY DISTRICT AND COUNTY FOR EACH DECADE BETWEEN 2020 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

District	County	Year					
		2020	2030	2040	2050	2060	2070
Middle Pecos GCD	Pecos	7,040	7,040	7,040	7,040	7,040	7,040
	Total	7,040	7,040	7,040	7,040	7,040	7,040

TABLE 14. MODELED AVAILABLE GROUNDWATER FOR THE RUSTLER AQUIFER IN GROUNDWATER MANAGEMENT AREA 7 SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN FOR EACH DECADE BETWEEN 2030 AND 2070. RESULTS ARE IN ACRE-FEET PER YEAR.

County	RWPA	River Basin	Year				
			2030	2040	2050	2060	2070
Pecos	F	Rio Grande	7,040	7,040	7,040	7,040	7,040
		Rio Grande	7,040	7,040	7,040	7,040	7,040

LIMITATIONS:

The groundwater model used in completing this analysis is the best available scientific tool that can be used to meet the stated objectives. To the extent that this analysis will be used for planning purposes and/or regulatory purposes related to pumping in the past and into the future, it is important to recognize the assumptions and limitations associated with the use of the results. In reviewing the use of models in environmental regulatory decision making, the National Research Council (2007) noted:

“Models will always be constrained by computational limitations, assumptions, and knowledge gaps. They can best be viewed as tools to help inform decisions rather than as machines to generate truth or make decisions. Scientific advances will never make it possible to build a perfect model that accounts for every aspect of reality or to prove that a given model is correct in all respects for a particular regulatory application. These characteristics make evaluation of a regulatory model more complex than solely a comparison of measurement data with model results.”

A key aspect of using the groundwater model to evaluate historical groundwater flow conditions includes the assumptions about the location in the aquifer where historic pumping was placed. Understanding the amount and location of historical pumping is as important as evaluating the volume of groundwater flow into and out of the district, between aquifers within the district (as applicable), interactions with surface water (as applicable), recharge to the aquifer system (as applicable), and other metrics that describe the impacts of that pumping. In addition, assumptions regarding precipitation, recharge, and streamflow are specific to a particular historical time period.

Because the application of the groundwater model was designed to address regional scale questions, the results are most effective on a regional scale. The TWDB makes no warranties or representations relating to the actual conditions of any aquifer at a particular location or at a particular time.

It is important for groundwater conservation districts to monitor groundwater pumping and groundwater levels in the aquifer. Because of the limitations of the groundwater model and the assumptions in this analysis, it is important that the groundwater conservation districts work with the TWDB to refine this analysis in the future given the reality of how the aquifer responds to the actual amount and location of pumping now and in the future. Historic precipitation patterns also need to be placed in context as future climatic conditions, such as dry and wet year precipitation patterns, may differ and affect groundwater flow conditions.

Model “Dry” Cells

In some cases, the predictive model run for this analysis could result in water levels in some model cells dropping below the base elevation of the cell during the simulation. In terms of water level, the cells have gone dry. However, as noted in the model assumptions the transmissivity of the cell remains constant and will produce water. This would mean that the modeled available groundwater would include imaginary “pumping” values that are coming from cells that are actually dry.

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APPENDIX F

Estimated Historical Water Use

TWDB Historical Water Use Survey (WUS) Data

Groundwater and surface water historical use estimates are currently unavailable for calendar year 2020. TWDB staff anticipates the calculation and posting of these estimates at a later date.

TERRELL COUNTY

100% (multiplier)

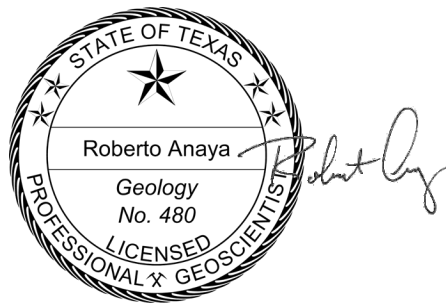
All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2019	GW	135	0	29	0	261	165	590
	SW	0	0	0	0	159	3	162
2018	GW	135	0	106	0	423	164	828
	SW	0	0	0	0	0	3	3
2017	GW	134	0	132	0	438	160	864
	SW	0	0	0	0	147	3	150
2016	GW	144	0	7	0	419	95	665
	SW	0	0	0	0	537	2	539
2015	GW	153	0	7	0	295	95	550
	SW	0	0	0	0	550	2	552
2014	GW	166	0	15	0	303	91	575
	SW	0	0	0	0	542	2	544
2013	GW	171	0	5	0	3	126	305
	SW	0	0	0	0	550	3	553
2012	GW	187	0	9	0	55	163	414
	SW	0	0	0	0	545	3	548
2011	GW	219	0	9	0	530	179	937
	SW	0	0	0	0	250	4	254
2010	GW	204	0	184	0	230	182	800
	SW	0	0	40	0	745	4	789
2009	GW	197	0	108	0	205	206	716
	SW	0	0	23	0	545	4	572
2008	GW	178	0	32	0	0	193	403
	SW	0	0	6	0	163	4	173
2007	GW	193	0	4	0	340	170	707
	SW	0	0	0	0	23	4	27
2006	GW	197	0	5	0	0	211	413
	SW	0	0	0	0	545	4	549
2005	GW	181	0	4	0	0	233	418
	SW	0	0	0	0	100	5	105
2004	GW	147	0	5	0	0	207	359
	SW	0	0	0	0	754	11	765

APPENDIX G

GAM RUN 23-002: TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT MANAGEMENT PLAN

Roberto Anaya, P.G.
Texas Water Development Board
Groundwater Division
Groundwater Modeling Department
512-463-6115
July 17, 2023



Professional Geoscientist Seal: July 31, 2023

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GAM RUN 23-002: TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT MANAGEMENT PLAN

Roberto Anaya, P.G.
Texas Water Development Board
Groundwater Division
Groundwater Modeling Department
512-463-6115
July 17, 2023

EXECUTIVE SUMMARY:

Texas Water Code § 36.1071 (h) states that, in developing its groundwater management plan, a groundwater conservation district shall use groundwater availability modeling information provided by the Executive Administrator of the Texas Water Development Board (TWDB) in conjunction with any available site-specific information provided by the district for review and comment to the Executive Administrator.

The TWDB provides data and information to the Terrell County Groundwater Conservation District in two parts. Part 1 is the Estimated Historical Water Use/State Water Plan dataset report, which will be provided to you separately by the TWDB Groundwater Technical Assistance Department. Please direct questions about the water data report to Mr. Stephen Allen at 512-463-7317 or stephen.allen@twdb.texas.gov. Part 2 is the required groundwater availability modeling information, which includes:

1. the annual amount of recharge from precipitation, if any, to the groundwater resources within the district;
2. the annual volume of water that discharges from the aquifer to springs and any surface-water bodies, including lakes, streams, and rivers for each aquifer within the district; and
3. the annual volume of flow into and out of the district within each aquifer and between aquifers in the district.

The groundwater management plan for the Terrell County Groundwater Conservation District should be adopted by the district on or before July 14, 2023 and submitted to the executive administrator of the TWDB on or before August 13, 2023. The current management plan for the Terrell County Groundwater Conservation District expires on October 12, 2023.

We used version 1.01 of the groundwater availability model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers (Anaya and Jones, 2009) to estimate the management plan information for the Edwards-Trinity (Plateau) Aquifer within Terrell County Groundwater Conservation District.

This report replaces the results of GAM Run 17-017 (Jones, 2017). Values may differ from the previous report as a result of routine updates to the spatial grid file used to define county, groundwater conservation district, and aquifer boundaries, which can impact the calculated water budget values. Additionally, the approach used for analyzing model results is reviewed during each update and may have been refined to more accurately delineate groundwater flows. Table 1 summarizes the groundwater availability model data required by statute. Figure 1 shows the area of the respective models from which the values in Table 1 were extracted. Figure 2 provides a generalized diagram of the groundwater flow components provided in Table 1. If, after review of the figures, the Terrell County Groundwater Conservation District determines that the district boundaries used in the assessment do not reflect current conditions, please notify the TWDB at your earliest convenience.

The flow components presented in this report do not represent the full groundwater budget. If additional inflow and outflow information would be helpful for planning purposes, the district may submit a request in writing to the TWDB Groundwater Modeling Department for the full groundwater budget.

METHODS:

In accordance with Texas Water Code § 36.1071(h), the groundwater availability model mentioned above was used to estimate information for the Terrell County Groundwater Conservation District management plan. Water budgets were extracted for the historical calibration period for the Edwards-Trinity (Plateau) Aquifer (1981 through 2000), using ZONEBUDGET Version 3.01 (Harbaugh, 2009). The average annual water budget values for recharge, surface-water outflow, inflow to the district, outflow from the district, and the flow between aquifers within the district are summarized in this report.

PARAMETERS AND ASSUMPTIONS:

Edwards-Trinity (Plateau) Aquifer

- We used version 1.01 of the groundwater availability model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers to analyze the Edwards-Trinity (Plateau) Aquifer. See Anaya and Jones (2009) for assumptions and limitations of the model.
- The groundwater availability model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers contains two layers. Within Terrell County Groundwater Conservation District:
 - Layer 1 represents the Edwards Group and equivalent limestone hydrostratigraphic units of the Edwards-Trinity (Plateau) Aquifer, and
 - Layer 2 represents the undifferentiated Trinity Group hydrostratigraphic units or equivalent units of the Edwards-Trinity (Plateau) Aquifer.
- An individual water budget for the district was determined for the Edwards-Trinity (Plateau) Aquifer (Layers 1 and 2, combined). The Pecos Valley Aquifer does not occur within the Terrell County Groundwater Conservation District and therefore no groundwater budget values are included for it in this report.
- Water budget terms were averaged for the period 1981 to 2000 (stress periods 2 through 21)
- The model was run with MODFLOW-96 (Harbaugh and McDonald, 1996).

RESULTS:

A groundwater budget summarizes the amount of water entering and leaving an aquifer according to the groundwater availability model. Selected groundwater budget components listed below were extracted from the groundwater availability model results for the Edwards-Trinity (Plateau) Aquifer located within the Terrell County Groundwater Conservation District and averaged over the historical calibration period, as shown in Table 1.

1. Precipitation recharge—the areally distributed recharge sourced from precipitation falling on the outcrop areas of the aquifers (where the aquifer is exposed at land surface) within the district.
2. Surface-water outflow—the total water discharging from the aquifer (outflow) to surface-water features such as streams, reservoirs, and springs.
3. Flow into and out of district—the lateral flow within the aquifer between the district and adjacent counties.
4. Flow between aquifers—the net vertical flow between the aquifer and adjacent aquifers or confining units. This flow is controlled by the relative water levels in each aquifer and aquifer properties of each aquifer or confining unit that define the amount of leakage that occurs.

The information needed for the district’s management plan is summarized in Table 1. Figure 1 shows the area of the respective models from which the values in Table 1 were extracted. Figure 2 provides a generalized diagram of the groundwater flow components provided in Table 1. It is important to note that sub-regional water budgets are not exact. This is due to the size of the model cells and the approach used to extract data from the model. To avoid double accounting, a model cell that straddles a political boundary, such as a district or county boundary, is assigned to one side of the boundary based on the location of the centroid of the model cell. For example, if a cell contains two counties, the cell is assigned to the county where the centroid of the cell is located.

Table 1: Summarized information for the Edwards-Trinity (Plateau) aquifer for the Terrell County Groundwater Conservation District groundwater management plan. All values are reported in acre-feet per year and rounded to the nearest 1 acre-foot.

Management plan requirement	Aquifer or confining unit	Results
Estimated annual amount of recharge from precipitation to the district	Edwards-Trinity (Plateau) Aquifer	41,490
Estimated annual volume of water that discharges from the aquifer to springs and any surface water body including lakes, streams, and rivers	Edwards-Trinity (Plateau) Aquifer	46,348
Estimated annual volume of flow into the district within each aquifer in the district	Edwards-Trinity (Plateau) Aquifer	77,440
Estimated annual volume of flow out of the district within each aquifer in the district	Edwards-Trinity (Plateau) Aquifer	73,163
Estimated net annual volume of flow between each aquifer in the district	Not applicable	Not applicable

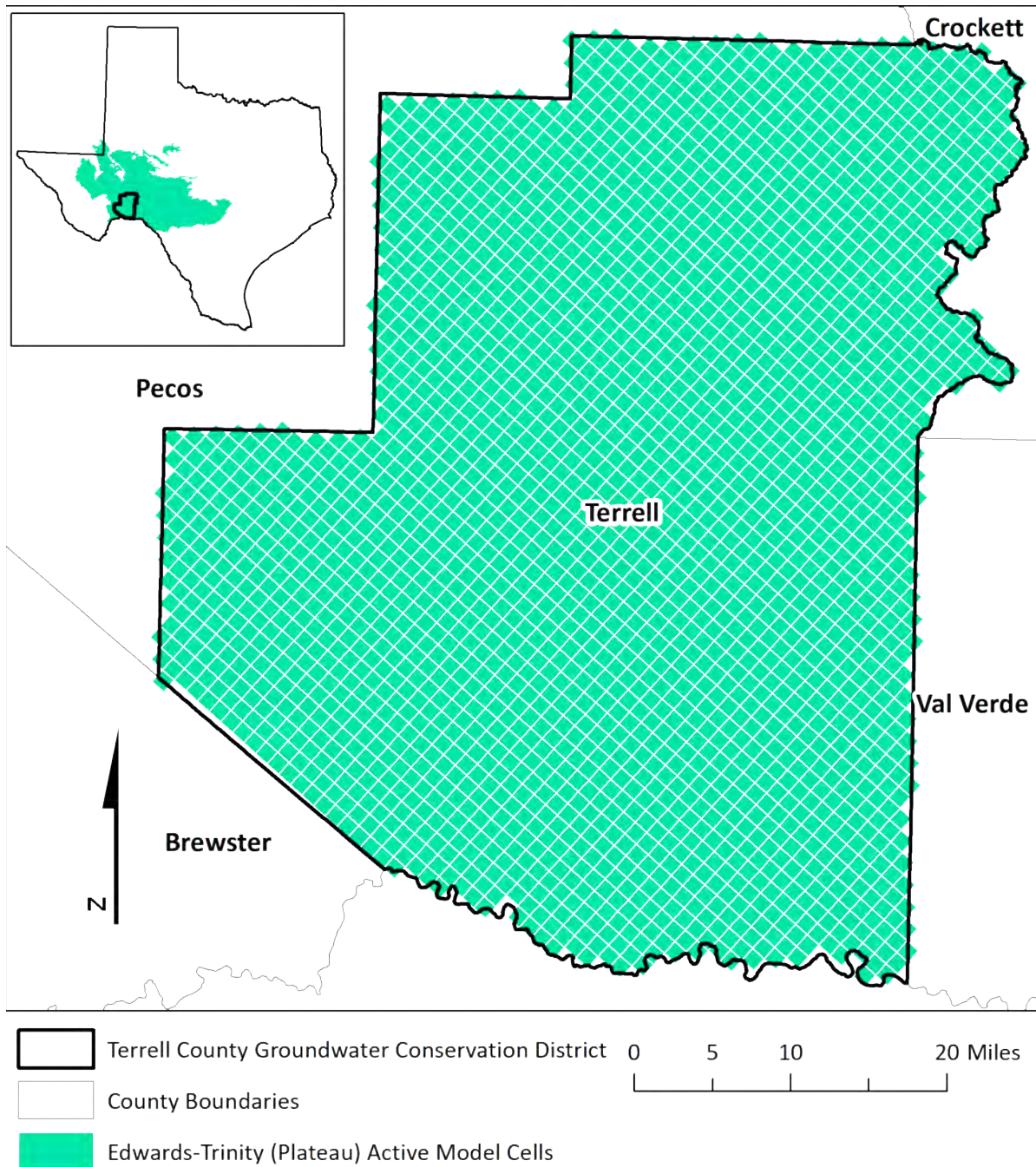
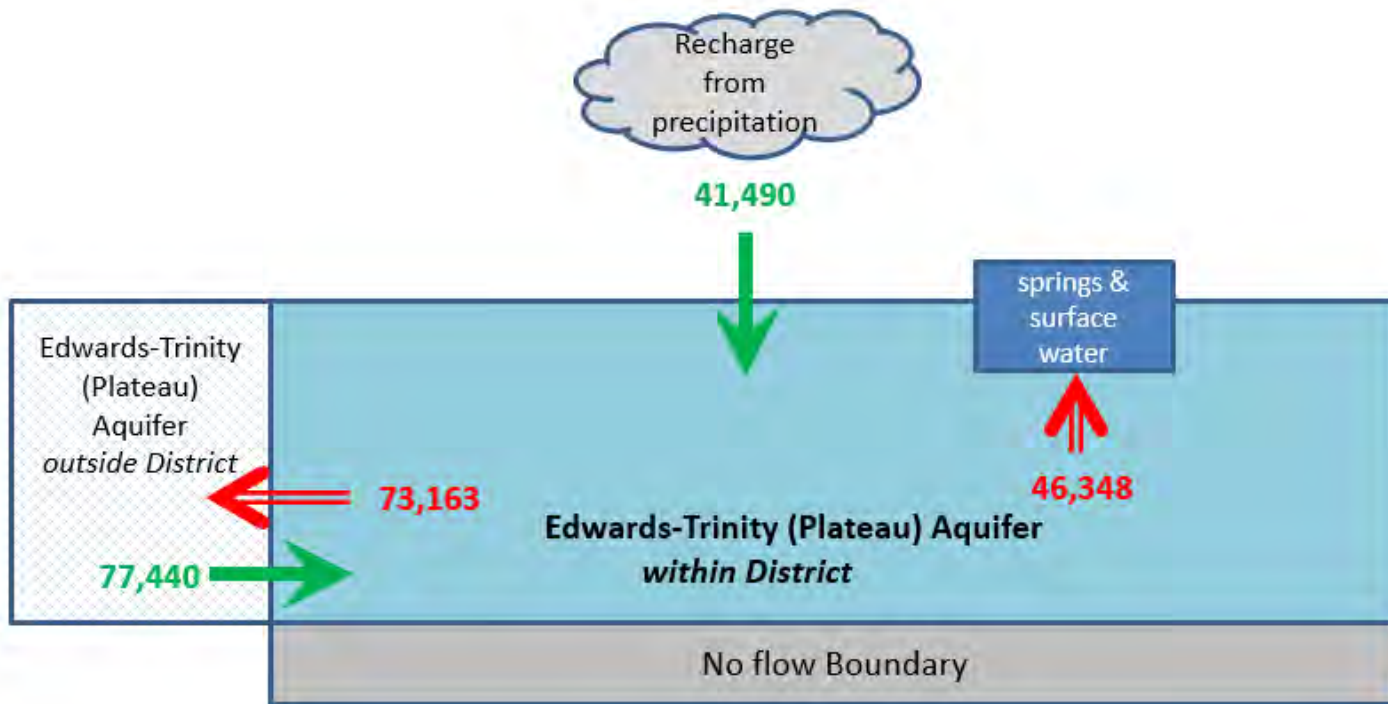


Figure 1: Area of the Edwards-Trinity (Plateau) and Pecos Valley aquifers groundwater availability model from which the information in Table 1 was extracted (the Edwards-Trinity [Plateau] aquifer extent within the district boundary).



Caveat: This diagram only includes the water budget items provided in Table 1. A complete water budget would include additional inflows and outflows. For a full groundwater budget, please submit a request in writing to the Groundwater Modeling Department.

Figure 2: Generalized diagram of the summarized budget information from Table 1, representing directions of flow for the Edwards-Trinity (Plateau) aquifer within Terrell County Groundwater Conservation District. Flow values are expressed in acre-feet per year.

LIMITATIONS:

The groundwater models used in completing this analysis are the best available scientific tools that can be used to meet the stated objectives. To the extent that this analysis will be used for planning purposes and/or regulatory purposes related to pumping in the past and into the future, it is important to recognize the assumptions and limitations associated with the use of the results. In reviewing the use of models in environmental regulatory decision making, the National Research Council (2007) noted:

“Models will always be constrained by computational limitations, assumptions, and knowledge gaps. They can best be viewed as tools to help inform decisions rather than as machines to generate truth or make decisions. Scientific advances will never make it possible to build a perfect model that accounts for every aspect of reality or to prove that a given model is correct in all respects for a particular regulatory application. These characteristics make evaluation of a regulatory model more complex than solely a comparison of measurement data with model results.”

A key aspect of using the groundwater model to evaluate historic groundwater flow conditions includes the assumptions about the location in the aquifer where historic pumping was placed. Understanding the amount and location of historical pumping is as important as evaluating the volume of groundwater flow into and out of the district, between aquifers within the district (as applicable), interactions with surface water (as applicable), recharge to the aquifer system (as applicable), and other metrics that describe the impacts of that pumping. In addition, assumptions regarding precipitation, recharge, and interaction with streams are specific to particular historic time periods.

Because the application of the groundwater models was designed to address regional scale questions, the results are most effective on a regional scale. The TWDB makes no warranties or representations related to the actual conditions of any aquifer at a particular location or at a particular time.

It is important for groundwater conservation districts to monitor groundwater pumping and overall conditions of the aquifer. Because of the limitations of the groundwater model and the assumptions in this analysis, it is important that the groundwater conservation districts work with the TWDB to refine this analysis in the future given the reality of how the aquifer responds to the actual amount and location of pumping now and in the future. Historic precipitation patterns also need to be placed in context as future climatic conditions, such as dry and wet year precipitation patterns, may differ and affect groundwater flow conditions.

REFERENCES:

Anaya, R., and Jones, I. C., 2009, Groundwater availability model for the Edwards-Trinity (Plateau) and Pecos Valley aquifers of Texas: Texas Water Development Board Report 373, 103 p. http://www.twdb.texas.gov/groundwater/models/gam/eddt_p/ET-Plateau_Full.pdf

Harbaugh, A. W., 2009, Zonebudget Version 3.01, A computer program for computing subregional water budgets for MODFLOW ground-water flow models, U.S. Geological Survey Groundwater Software.

Harbaugh, A. W., and McDonald, M. G., 1996, User's documentation for MODFLOW-96, an update to the U.S. Geological Survey modular finite-difference groundwater-water flow model: U.S. Geological Survey Open-File Report 96-485, 56 p.

Jones, I., 2017, GAM Run 17-017: Texas Water Development Board, GAM Run 17-017 Report, 20 p., <https://www.twdb.texas.gov/groundwater/docs/GAMruns/GR17-017.pdf>.

National Research Council, 2007, Models in Environmental Regulatory Decision Making Committee on Models in the Regulatory Decision Process, National Academies Press, Washington D.C., 287 p., http://www.nap.edu/catalog.php?record_id=11972.

Texas Water Code § 36.1071

APPENDIX H

Projected Surface Water Supplies

TWDB 2022 State Water Plan Data

TERRELL COUNTY

100% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
E	Irrigation, Terrell	Rio Grande	Rio Grande Run-of-River	441	441	441	441	441	441
Sum of Projected Surface Water Supplies (acre-feet)				441	441	441	441	441	441

APPENDIX I

Projected Water Demands

TWDB 2022 State Water Plan Data

Please note that the demand numbers presented here include the plumbing code savings found in the Regional and State Water Plans.

TERRELL COUNTY

100% (multiplier)

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
E	County-Other, Terrell	Rio Grande	21	21	20	20	20	20
E	Irrigation, Terrell	Rio Grande	751	751	751	751	751	751
E	Livestock, Terrell	Rio Grande	151	151	151	151	151	151
E	Mining, Terrell	Rio Grande	673	776	740	606	483	385
E	Terrell County WCID 1	Rio Grande	178	178	178	177	177	177
Sum of Projected Water Demands (acre-feet)			1,774	1,877	1,840	1,705	1,582	1,484

APPENDIX J

Projected Water Supply Needs

TWDB 2022 State Water Plan Data

Negative values (in red) reflect a projected water supply need, positive values a surplus.

TERRELL COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
E	County-Other, Terrell	Rio Grande	54	54	55	55	55	55
E	Irrigation, Terrell	Rio Grande	163	163	163	163	163	163
E	Livestock, Terrell	Rio Grande	55	55	55	55	55	55
E	Mining, Terrell	Rio Grande	-483	-586	-550	-416	-293	-195
E	Terrell County WCID 1	Rio Grande	298	298	298	299	299	299
Sum of Projected Water Supply Needs (acre-feet)			-483	-586	-550	-416	-293	-195

APPENDIX K

TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT RULES

Adopted October 29, 2014;
Amended on July 29, 2015; March 30, 2016; September 27, 2017; October 22, 2020; and
August 14, 2023.

**TERRELL COUNTY GROUNDWATER CONSERVATION DISTRICT RULES
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SECTION 1.

DEFINITION, CONCEPTS, AND GENERAL PROVISIONS

Rule 1.1 Definition of Terms

In the administration of its duties, the District follows the definitions of terms set forth in Chapter 36, Texas Water Code, and other definitions as follows:

- (a) "Acre-foot" means the amount of water necessary to cover one acre of land to the depth of one foot, or 325,851 U.S. gallons of water.
- (b) "Affected person" means, for any application, a person who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest.
- (c) "Agricultural irrigation use" means applying groundwater to soil to produce crops for human food, animal feed, or planting seed or for the production of fibers.
- (d) "Animal feeding operation" means a lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of forty-five (45) days or more in any 12-month period, and the animal confinement areas do not sustain crops, vegetation, forage growth, or postharvest residues in the normal growing season over any portion of the lot or facility.
- (e) "Aquifer" means a water-bearing geologic formation located in whole or in part within the boundaries of the District.
- (f) "Aquifer storage and recovery project" means a project involving the injection of water into a geologic formation for the purpose of subsequent recovery and beneficial use by the project operator.
- (g) "ASR injection well" means a Class V injection well used for the injection of water into a geologic formation as part of an aquifer storage and recovery project.
- (h) "ASR recovery well" means a well used for the recovery of water from a geologic formation as part of an aquifer storage and recovery project.
- (i) "Beneficial use" or "beneficial purpose" means use of groundwater for:
 - (1) Agricultural, gardening, domestic, stock raising, municipal, mining, manufacturing, industrial, commercial, or recreational purposes;
 - (2) Exploring for, producing, handling, or treating oil, gas, sulfur, lignite, or other minerals; or

- (3) Any other purpose that is useful and beneficial to the user that does not constitute waste.
- (j) “Best available science” means conclusions that are logically and reasonably derived using statistical or quantitative data, techniques, analyses, and studies that are publicly available to reviewing scientists and can be employed to address a specific scientific question.
- (k) “Board” means the Board of Directors of the District.
- (l) “Completed well” or a well that has been “completed,” means a well, the construction of which has been completed, with sealed off access of undesirable water or constituents to the well bore by utilizing proper casing and annular space positive displacement or pressure tremie tube grouting or cementing (sealing) methods.
- (m) “Concentrated animal feeding operation” (“CAFO”) means any animal feeding operation with the number of animals established in the Texas Commission on Environmental Quality (“TCEQ”) Rules, including at least 37,500 chickens (other than laying hens), or that has been designated by the TCEQ Executive Director as a CAFO because it is a significant contributor of pollutants into or adjacent to water in the state.
- (n) “Desired Future Conditions” means a quantitative description, adopted in accordance with Section 36.108, Texas Water Code, of the desired condition of the groundwater resources in a Groundwater Management Area (“GMA”) at one or more specified future times.
- (o) “Deteriorated well” means a well that, because of its condition, will cause or is likely to cause pollution of any water in the District, including groundwater.
- (p) “Development board” means the Texas Water Development Board
- (q) “Dewatering well” means a well used to produce groundwater for the purpose of lowering the water table or potentiometric surface, removing water from a construction site or excavation, mining, or relieving hydrostatic uplift on permanent structures.
- (r) “District” means the Terrell County Groundwater Conservation District created in accordance with Section 59, Article XVI, Texas Constitution, Chapter 36, Texas Water Code, and the District Act.
- (s) “District Act” means the Act of May 19, 2011, 82nd Leg., R.S., ch. 336, 2011 Tex. Gen. Laws 955, codified at SPEC. DIST. LOC. LAWS CODE ANN. ch. 8837 (“the District Act”), as may be amended from time to time.
- (t) “District Office” means the office of the District located in Sanderson, Terrell County, Texas. The location of the District office may be changed from time to time by the Board.

- (u) “Domestic use” means the use of groundwater by an individual or a household to support domestic activity. Such use may include water for drinking, washing, or culinary purposes; for irrigation of lawns, or of a family garden and/or family orchard; for watering of domestic animals. Domestic use does not include the following types of use: water used to support activities for which consideration is given or received or for which the product of the activity is sold, use by or for a public water system, irrigation of crops in fields or pastures. Domestic use does not include water used for open-loop residential geothermal heating and cooling systems, but does include water used for closed-loop residential geothermal systems. Domestic use does not include pumping groundwater into a pond or other surface water impoundment unless the impoundment is fully lined with an impervious artificial liner and has a surface area equal to or smaller than one-third of a surface acre (14,520 square feet).
- (v) “Effective date” means October 29, 2014, which was the date of adoption of these Rules.
- (w) “Emergency Permit” means a permit issued by the District for emergency purposes, as set forth under Rule 3.15.
- (x) “Evidence of Historic and Existing Use” means evidence that is material and relevant to a determination of the amount of groundwater beneficially used without waste by a permit applicant during the relevant time period set by District Rule that regulates groundwater based on historic use. Evidence in the form of oral or written testimony shall be subject to cross-examination. The Texas Rules of Evidence govern the admissibility and introduction of evidence of historic or existing use, except that evidence not admissible under the Texas Rules of Evidence may be admitted if it is of the type commonly relied upon by reasonably prudent persons in the conduct of their affairs.
- (y) “Exempt well” means a new or an existing well that is exempt from permitting under the laws of this State or these Rules and is not required to have an Operating or Grandfathered Use Permit to withdraw water from the aquifer.
- (z) “Existing well” means a well that was in existence or for which drilling commenced on or before October 29, 2014 (the Effective Date of these Rules).
- (aa) “General Manager” means the person employed by the Board to manage employees and day-to-day operations and affairs of the District and whose title is “General Manager.”
- (bb) “Grandfathered Use Period” means the period from January 1, 1995 through the Effective Date of these Rules, in which water produced from a well or well system was put to beneficial use at any point during the duration of the period.
- (cc) “Grandfathered Use Permit” means a permit required by the District for a non-exempt, existing well or well system that produced water during the Grandfathered Use Period and has not been abandoned.

- (dd) “Grandfathered Use Verification Period” means the period from the Effective Date of these Rules, to December 31, 2015 by which well owners may seek Grandfathered Use Permit status for a well or well system within the District.
- (ee) “Groundwater” means water percolating below the surface of the earth.
- (ff) “Groundwater reservoir” means a specific subsurface water-bearing stratum.
- (gg) “Groundwater Management Area” means an area designated and delineated by the Texas Water Development Board as suitable for the management of groundwater resources.
- (hh) “Hearing Examiner” means a person appointed in writing by the Board to conduct a hearing or other proceeding and who has the authority granted to a Presiding Officer under these Rules, except as that authority may be limited by the Board or pursuant to the appointment.
- (ii) “Landowner” means the person who holds possessory rights to the land surface or to the withdrawal of groundwater from wells located on the land surface.
- (jj) “Leachate well” means a well used to remove contamination from soil or groundwater. The term does not include a dewatering well.
- (kk) “Livestock” means, in the singular or plural, grass or plant-eating, single- or cloven-hooved mammals raised in an agricultural setting for subsistence, profit or for its labor, or to make produce such as food or fiber, including cattle, horses, mules, asses, sheep, goats, llamas, alpacas, and hogs, as well as species known as ungulates that are not indigenous to this state from the swine, horse, tapir, rhinoceros, elephant, deer, and antelope families, but does not mean a mammal defined as a game animal in section 63.001, Parks and Wildlife Code, or as a fur-bearing animal in section 71.001, Parks and Wildlife Code, or any other indigenous mammal regulated by the Texas Department of Parks and Wildlife as an endangered or threatened species. The term does not include any animal that is stabled, confined, or fed at a facility that is defined by Texas Commission on Environmental Quality rules as an Animal Feeding Operation or a Concentrated Animal Feeding Operation.
- (ll) “Livestock use” means the use of groundwater for the open-range watering of livestock.
- (mm) “Management Plan” means the District Management Plan required under Section 36.1071, Texas Water Code, and as further described in these Rules.
- (nn) (ii) “Management Zone” means one or more of the zones into which the Board may divide the District following the completion of the District Management Plan as set forth under Section 12 of these Rules.
- (oo) “Maximum Grandfathered Use” means the largest volume of groundwater produced from an aquifer and beneficially used by an applicant for a Grandfathered Use Permit for an existing well during a calendar year in the Grandfathered Use Period. For applicants

seeking a Grandfathered Use Permit for an existing well who did not commence the beneficial use of water from an aquifer until less than one calendar year before the end of the Grandfathered Use Period, the term means the calculated amount of groundwater that the applicant would in all reasonable likelihood have beneficially used during the entire final calendar year of the Grandfathered Use Period for the applied-for purpose, had the applicant commenced the activities that required the groundwater production on the first day of the final calendar year of the Grandfathered Use Period.

- (pp) “Meter” or “flow measurement device” means a water flow measuring device that can measure within +/- 5% of accuracy the instantaneous rate of flow and record the amount of groundwater produced or transported from a well or well system during a measure of time.
- (qq) “Modeled Available Groundwater” means the amount of water that the Executive Administrator of the Texas Water Development Board determines may be produced on an average annual basis to achieve a Desired Future Condition established for the groundwater resources in the District.
- (rr) “Monitoring well” means a well installed to measure some property of the groundwater or the aquifer that it penetrates, and does not produce more than 5,000 gallons per year.
- (ss) “New well” means a well for which drilling commenced on or after October 29, 2014 (the Effective Date of these Rules).
- (tt) “Non-exempt well” means an existing or a new well that does not qualify for exempt well status under the laws of this State or these Rules.
- (uu) “Office” means the State Office of Administrative Hearings
- (vv) “Open Meetings Act” means Chapter 551, Texas Government Code, as it may be amended from time to time, also known as the “Texas Open Meetings Act.”
- (ww) “Operating Permit” means a permit required by the District for the following:
 - (1) The equipping or completing of a non-exempt water well for production;
 - (2) The operation or production of groundwater from any non-exempt water well for which a Grandfathered Use Permit has not been issued; or
 - (3) The substantial alteration of an existing well that has been granted a Grandfathered Use Permit as that term is defined in Rule 1.1(x).
- (xx) “Party” means a person who is an automatic participant in a proceeding before the District as set forth under Rule 10.4 or a person who has been determined to be an affected person as defined by these Rules and Chapter 36 of the Texas Water Code.

- (yy) “Penalty” means a reasonable civil penalty set by Rule under the express authority delegated to the District through Section 36.102(b) of the Texas Water Code.
- (zz) “Person” means an individual, corporation, limited liability company, organization, government, governmental subdivision, agency, business trust, estate, trust, partnership, association, or other legal entity.
- (aaa) “Pollution” means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of any groundwater in the District that renders the groundwater harmful, detrimental, or injurious to humans, animal life, vegetation, property, or to public health, safety, or welfare, or impairs the usefulness or public enjoyment of the water for any lawful or reasonable use.
- (bbb) “Poultry” means chickens, turkeys, nonmigratory game birds, and other domestic nonmigratory fowl, but does not include any other bird regulated by the Parks and Wildlife as an endangered or threatened species. For purposes of qualifying for the exemption from the permitting requirements under Rule 3.5(a)(2), the term “poultry” does not include any animal that is housed at a facility that is used to raise, grow, feed, or otherwise produce poultry for commercial purposes or is a commercial poultry hatchery that is used to produce chicks or ducklings and that qualifies as an Animal Feeding Operation or Concentrated Animal Feeding Operation under TCEQ rules and as defined by these Rules.
- (ccc) “Poultry use” means the use of groundwater for the watering of poultry.
- (ddd) “Presiding Officer” means the President of the Board, or other Board member presiding at any hearing or other proceeding or a Hearing Examiner appointed by the Board to conduct or preside over any hearing or other District proceeding.
- (eee) “Production” or “producing” means the act of extracting groundwater from an aquifer by a pump or other method.
- (fff) “Project operator” means a person holding an authorization under this subchapter to undertake an aquifer storage and recovery project.
- (ggg) “Public Information Act” means Chapter 552, Texas Government Code, as it may be amended from time to time.
- (hhh) “Public water supply well” means a well that produces the majority of its water for use by a public water system.
- (iii) “Public Water System” means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, which includes all uses described under the definition for "drinking water" in 30 Texas Administrative Code, Section 290.38. Such a system must have at least fifteen (15) service connections or serve at least twenty-five (25) individuals at least sixty (60) days out of the year. This term includes any collection, treatment, storage, and distribution facilities under the control of

the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Two or more systems with each having a potential to serve less than fifteen (15) connections or less than twenty-five (25) individuals but owned by the same person, firm, or corporation and located on adjacent land will be considered a public water system when the total potential service connections in the combined systems are fifteen (15) or greater or if the total number of individuals served by the combined systems total twenty-five (25) or greater at least sixty (60) days out of the year. Without excluding other meanings of the terms "individual" or "served," an individual shall be deemed to be served by a water system if he lives in, uses as his place of employment, or works in a place to which drinking water is supplied from the system.

- (jjj) "Pump" means any facility, device, equipment, materials, or method used to obtain water from a well.
- (kkk) "Registrant" means a person required to submit a registration.
- (lll) "Registration" means a well owner providing certain information about a well to the District, as more particularly described under Section 3.
- (mmm) "Retail Public Utility" means any person, corporation, public utility, water supply or sewer service corporation, municipality, political subdivision, or agency operating, maintaining, or controlling in this state facilities for providing potable water service or sewer service, or both, for compensation, as defined by Section 13.002 of the Texas Water Code.
- (nnn) "Rule" or "Rules" means these Rules of the District regulating water wells, which shall continue to be effective until amended or repealed. Any Temporary Rules adopted by the District are replaced and superseded by these Rules.
- (ooo) "Subsidence" means the lowering in elevation of the surface of the land caused by the withdrawal of groundwater from the aquifer.
- (ppp) "Substantially alter" with respect to the size or capacity of a well means to increase the inside diameter of the pump discharge column pipe size of the well in any way or to alter or replace the pump to increase its designed production capacity in any way, or to otherwise increase the capacity of the well to produce groundwater so that the maximum production capacity is increased by a factor of five percent (5%) or more over the pre-alteration capacity.
- (qqq) "Transfer" means a change in a registration as follows, except that the term "transfer" shall have its ordinary meaning as read in context when used in other contexts:
 - (1) Ownership; or
 - (2) The person authorized to exercise the right to make withdrawals and place the groundwater to beneficial use.

- (rrr) “Waste” means one or more of the following:
- (1) Withdrawal of groundwater from the aquifer at a rate and in an amount that causes or threatens to cause an intrusion into the aquifer unsuitable for agriculture, gardening, domestic, stock raising, or other beneficial purposes;
 - (2) The flowing or producing of water from the aquifer by artificial means if the water produced is not used for a beneficial purpose;
 - (3) The escape of groundwater from the aquifer to any other underground reservoir or geologic stratum that does not contain groundwater;
 - (4) Pollution or harmful alteration of groundwater in the aquifer by saltwater or by other deleterious matter admitted from another stratum or from the surface of the ground;
 - (5) 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 other order issued by the Texas Commission on Environmental Quality under Chapters 11 or 26 of the Texas Water Code;
 - (6) 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;
 - (7) For water produced from an artesian well, “waste” has the meaning assigned by Section 11.205, Texas Water Code;
 - (8) Operating a deteriorated well;
 - (9) Producing groundwater in violation of Rule 8.1; or
 - (10) Producing groundwater in violation of any Rule governing the withdrawal of groundwater through production limits on wells, managed depletion, or both.
- (sss) (“Well” means any artificial excavation located within the boundaries of the District dug or drilled for the purpose of exploring for or withdrawing groundwater from the aquifer.
- (ttt) “Well owner” means the person who owns a possessory interest in:
- (1) The land upon which a well or well system is located or to be located;
 - (2) The well or well system; or

- (3) The groundwater withdrawn from a well or well system.
- (uuu) “Well system” means a well or group of wells tied to the same distribution system and where the groundwater production amount authorized by permit is aggregated and assigned to the entire well system.
- (vvv) “Withdraw” means the act of extracting or producing groundwater by pumping or other method.
- (www) “Year” means a calendar year (January 1 through December 31), except where the usage of the term clearly suggests otherwise.

Rule 1.2 Authority of District

The Terrell County Groundwater Conservation District is a political subdivision of the State of Texas organized and existing under Section 59, Article XVI, Texas Constitution, Chapter 36, Texas Water Code, and the District Act. The District is a governmental agency and a body politic and corporate of the State of Texas. The District was created to serve a public use and benefit in preserving the groundwater resources of Terrell County.

Rule 1.3 Purpose of Rules

These Rules are adopted under the authority of Sections 36.101 and 36.1071(f), Texas Water Code, and the District Act for the purpose of conserving, preserving, protecting, and recharging groundwater in the District in order to prevent the degradation of water quality, prevent waste of groundwater, and to carry out the powers and duties of Chapter 36, Texas Water Code, and the District Act.

Rule 1.4 Purpose of District

The purpose of the District is to provide for the conservation, preservation, protection, recharging, and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, consistent with the objectives of Section 59, Article XVI, Texas Constitution, Chapter 36 of the Texas Water Code, and the District Act.

Rule 1.5 Use and Effect of Rules

These Rules are used by the District in the exercise of the powers conferred on the District by law and in the accomplishment of the purposes of the law creating the District. These Rules may be used as a guide in the exercise of discretion, where discretion is vested. These Rules shall not be construed as a limitation or restriction upon the District to exercise its powers, duties and jurisdiction conferred by law. These Rules create no vested rights or privileges in any person or water well, and shall not be construed to bind the Board in any manner in its promulgation of the amendments to these Rules. When adopting or amending these Rules, the District shall:

- (1) Consider all groundwater uses and needs;

- (2) Develop Rules that are fair and impartial;
- (3) Consider the groundwater ownership and rights described by Section 36.002, Texas Water Code;
- (4) Consider the public interest in conservation, preservation, protection, recharging, and prevention of waste of groundwater, and of groundwater reservoirs or their subdivisions, and in controlling subsidence caused by withdrawal of groundwater reservoirs or their subdivision, consistent with the objectives of Section 59, Article XVI, Texas Constitution;
- (5) Consider the goals developed as part of the District's Management Plan under Section 36.1071, Texas Water Code; and,
- (6) Not discriminate between land that is irrigated for production and land that was irrigated for production and enrolled or participating in a federal conservation program.

Rule 1.6 Construction of Rules

A reference to a title or chapter without further identification is a reference to a title or chapter of the Texas Water Code. A reference to a section or Rule without further identification is a reference to a section or Rule in these Rules. Construction of words and phrases is governed by the Code Construction Act, Subchapter B, Chapter 311, Texas Government Code. The singular includes the plural, and the plural includes the singular. The masculine includes the feminine, and the feminine includes the masculine.

Rule 1.7 Ownership of Groundwater

Nothing in Chapter 36, Texas Water Code, or these Rules shall be construed as granting the authority to deprive or divest a landowner, including a landowner's lessees, heirs, or assigns, of the groundwater ownership and rights described by Section 36.002, Texas Water Code, recognizing, however, that Section 36.002 does not prohibit the District from limiting or prohibiting the drilling of a well for failure or inability to comply with minimum well spacing or tract size requirements adopted by the District; affect the ability of the District to regulate groundwater production as authorized under Section 36.113, 36.116, or 36.122 or otherwise under Chapter 36, Texas Water Code, or a special law governing the District.

Rule 1.8 Methods of Service Under the Rules

Except as provided in these Rules, any notice or document required by these Rules to be served or delivered may be delivered to the recipient or the recipient's authorized representative in person, by agent, by courier receipted delivery, by certified or registered mail sent to the recipient's last known address, or by fax to the recipient's current fax number and shall be accomplished by 5:00 p.m. on

the date which it is due. Service by mail is complete upon deposit in a post office depository box or other official depository of the United States Postal Service. Service by fax is complete upon transfer, except that any transfer commencing after 5:00 p.m. shall be deemed complete the following business day. If service or delivery is by mail and the recipient has the right or is required to do some act within a prescribed period of time after service, three days will be added to the prescribed period. If service by other methods has proved unsuccessful, service will be deemed complete upon publication of the notice or document in a newspaper of general circulation in the District.

Rule 1.9 Computing Time

In computing any period of time prescribed or allowed by these Rules, order of the Board, or any applicable statute, the day of the act, event, or default from which the designated period of time begins to run is not included, but the last day of the period so computed is included, unless it is a Saturday, Sunday, or legal holiday, in which event the period runs until the end of the next day which is neither a Saturday, Sunday, or legal holiday.

Rule 1.10 Severability

If a provision contained in these Rules is for any reason held to be invalid or unenforceable in any respect, the invalidity or unenforceability does not affect any other Rules or provisions of these Rules.

Rule 1.11 Regulatory Compliance; Other Governmental Entities

All registrants of the District shall comply with all applicable Rules and regulations of the District and of all other appropriate governmental entities. If the District Rules and regulations are more stringent than those of other governmental entities, the District Rules and regulations control.

Rule 1.12 Time Limits

Applications, requests, or other papers or documents required or allowed to be filed under these Rules or by law must be received for filing by the District within the time limit for filing, if any. The date of receipt, not the date of posting, is determinative of the time of filing. Time periods set forth in these Rules shall be measured by calendar days, unless otherwise specified.

Rule 1.13 Headings and Captions

Section and Rule headings and captions contained in these Rules are for reference purposes only and do not affect the meaning or interpretation of these Rules in any way.

Rule 1.14 Amending of Rules

The Board may, following notice and hearing, amend or repeal these Rules or adopt new Rules from time to time, at the Board's discretion.

Rule 1.15 Requests for Reconsideration and Appeal

To appeal a decision of the Board concerning any matter, a request for reconsideration must be filed with the District within twenty (20) calendar days of the date of the Board's decision. Such request for reconsideration must be in writing and must state clear and concise grounds for the request. The Board's decision is final if no request for reconsideration is timely filed, upon the Board's denial of the request for reconsideration, or upon rendering a decision after rehearing the request for reconsideration. If the rehearing request is granted by the Board, the date of the rehearing will be within forty-five (45) calendar days thereafter. The failure of the Board to grant or deny the request for reconsideration within ninety (90) calendar days of the date of submission shall constitute a denial of the request. After all administrative remedies are exhausted with the District and the Board's decision is final, suit may be filed in a court of competent jurisdiction to appeal the Board's decision. The deadline for filing this suit is sixty (60) days after the Board's decision is final. A suit is prohibited if a request for reconsideration was not timely filed.

SECTION 2.

OTHER DISTRICT MANAGEMENT ACTIONS AND DUTIES

Rule 2.1 District Management Plan

Following notice and hearing, the District shall adopt a Management Plan. The District Management Plan shall specify the acts and procedures and performance and avoidance measures necessary to prevent waste, the reduction of artesian pressure, or the draw-down of the water table. The District shall use the Rules to implement the Management Plan. The Board will review the Management Plan at least every five years. Upon adoption of Desired Future Conditions under Section 36.108 Texas Water Code, the District shall update its Management Plan within two years of the date of the adoption of the Desired Future Conditions. The District shall thereafter update its Rules to implement the Management Plan within one year of the date the Management Plan is updated to include the adopted Desired Future Conditions. If the Board considers a new Management Plan necessary or desirable based on evidence presented at a hearing, a new Management Plan will be developed and adopted. A Management Plan, once adopted, remains in effect until the subsequent adoption of another Management Plan.

SECTION 3.

WELL REGISTRATION AND PERMITTING

Rule 3.1 Registration Required

- (a) All water wells, both existing and new, must be registered with the District and are required to comply with the District's registration requirements in these Rules. No well may be drilled, modified, altered, or operated unless the well is registered with the District, or unless otherwise expressly authorized in these Rules.

- (b) A violation of this Section occurs on the first day that the drilling, alteration, modification, or operation occurs, and continues each day thereafter as a separate violation until cessation of the prohibited conduct, or until the well is registered with the District.
- (c) Existing wells that are not registered prior to December 31, 2015 will be presumed to be wells not in existence prior to December 31, 2015. After December 31, 2015, existing well owners must submit additional evidence that the well existed before October 29, 2014 (the Effective Date of these Rules) for purposes of grandfathering the well from the requirement to comply with any well location or spacing requirements of the District and any other entitlements that existing wells may receive under these Rules.

Rule 3.2 Purpose and Policy

The registration of all wells is necessary in order for the District to be able to protect the use of groundwater in the District. The purpose of this Section is to require the submission of complete, accurate, and timely records, reports, and logs as required throughout these Rules. Because of the important role that accurate and timely reporting plays in the District's understanding of past, current, and anticipated groundwater conditions and use within the District, the failure to comply with these Rules may result in the assessment of additional fees, civil penalties, or any combination of the same.

Rule 3.3 General Registration Procedures

- (a) Each application for well registration must be certified in writing and sworn-to and must include the following on a form provided by the District:
 - (1) The name, telephone number, fax number, and mailing address of the registrant and the owner of the land on which the well is or will be located;
 - (2) If the applicant is a person other than the owner of the property, documentation establishing the authority of the applicant to file the application for well registration, to serve as the registrant in lieu of the property owner, and to construct and operate the well for the proposed use;
 - (3) A statement of the nature and purpose of the existing or proposed use and the amount of water used or to be used for each purpose;
 - (4) The location of the well;
 - (5) A water well closure plan or a declaration that the applicant will comply with well plugging guidelines and report closure to the District;
 - (6) A statement that the water withdrawn from the well will be put to beneficial use at all times;
 - (7) The location of the use of the water from the well;

- (8) The maximum production capacity of the well as equipped for a 24-hour period;
- (9) The estimated rate at which water is or will be withdrawn from the well; and
- (10) Other information:
 - (i) included in a rule of the District in effect on the date the application is submitted that specifies what information must be included in an application for a determination of administrative completeness; and
 - (ii) reasonably related to an issue that the District by law is authorized to consider.
- (b) Well registration applications meeting any of the criteria in Rule 3.17(a) shall submit a Hydrogeologic Report to the District that meets the requirements in Rule 3.17.
- (c) An administratively complete registration application contains the information set forth in Subsections (a) and (b), any applicable administrative fees for the processing of the registration application as provided in the District's schedule of fees described in Rule 14.5, and, if the registration is for a new well, is accompanied by a well report deposit.
- (d) For purposes of determining applicable well spacing and permitting requirements, the information included in a timely filed, administratively complete application for well registration may be used as evidence that the well existed before October 29, 2014 (the Effective Date of these Rules).
- (e) Upon receipt of the well report and well log required by Rule 3.4, a registration shall be perpetual in nature, subject to enforcement and/or cancellation for violation of these Rules.
- (f) Prior to recompleting, altering, or modifying a well that is registered with the District, whether an exempt or non-exempt well, the well owner must obtain a registration amendment on a form prescribed by the District before any changes can be made to recomplete, alter, or modify the well.
- (g) A determination of administrative completeness of a registration application shall be made by the District. If an application is not administratively complete, the District shall notify the applicant in writing and request the applicant to complete the pending application. The application will expire and be returned to the applicant if not completed within ninety (90) days of the date of the District's initial request to complete the pending application. An application will be considered administratively complete if it complies with all requirements set forth in these Rules and Sections 36.113 and 36.1131 of the Texas Water Code, including all information required to be included in the application that may be obtained through reasonable diligence.

- (h) District staff shall review the registration application submitted under this Section and shall determine whether the proposed well must obtain an Operating Permit under these Rules or if the well must obtain a Grandfathered Use Permit under these Rules. District staff shall inform the applicant of this determination within ten (10) business days of the District's receipt of the completed registration form.
- (i) Registration forms may be submitted to the District in person or by mail, using the registration form provided by the District. The District registration form can be obtained at the District office or any location designated by the District.
- (j) An application pursuant to which a registration has been issued is incorporated in the registration, and the registration is valid contingent upon the accuracy of the information supplied in the application. A finding that false information has been supplied in the application may be grounds to deny approval of the registration or to revoke, suspend, or postpone the registration.
- (k) Submission of a registration application constitutes an acknowledgment by the registrant of notice and receipt of the Rules and regulations of the District and agreement that the registrant will comply with all District Rules and regulations, as they may be amended from time to time. The District may amend any registration, in accordance with these Rules, to accomplish the purposes of the District Rules, Management Plan, the District Act, or Chapter 36 of the Texas Water Code.

Rule 3.4 Deposit for Well Report

- (a) A registrant for a new well has 120 days from the date of approval by the District to drill and complete the new well, and must file a well report and well log with the District within (sixty) 60 days of well completion. The driller shall also file geophysical logs with the District, if available. A registrant may apply for one extension before the expiration of 120 days from the date of filing a registration application to drill and complete the new well, and must file the well report and well log with the District within (sixty) 60 days of completion. A request for an extension may be approved by the District.
- (b) The Board, by resolution, may establish a well report deposit to be held by the District as part of well registration. The District shall return the deposit if all relevant well reports and well logs are timely submitted to the District. If the District does not timely receive all relevant well reports and/or logs, or if rights granted within the registration are not utilized in a timely manner, the deposit shall become the property of the District. The Board may also establish a schedule of forfeiture, whereby the depositor forfeits an established amount upon the well report being seven days late, and may increase as the District sees fit depending on the number of days the depositor is late.
- (c) If the well report and well log for a new well is timely submitted to the District, the District shall return the well report deposit to the owner or well driller. In the event that the well report and well log required under this Rule are not filed within sixty (60) days after the

date the well is completed, the owner or well driller shall forfeit the well report deposit and shall be subject to enforcement.

- (d) All new wells must be drilled within 30 feet (10 yards) of the location specified in the registration or permit application.

Rule 3.5 Wells Exempt from Permitting Requirements

- (a) The permitting requirements of these Rules do not apply to:
 - (1) Drilling or operating a well used solely for domestic use purposes.
 - (2) A well which meets all of the following requirements:
 - (i) Provides water for livestock use or poultry use, as those terms are defined in Rule 1.1;
 - (ii) Located or to be located on a tract of land larger than ten (10) acres; and
 - (iii) Drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day.

For purposes of an exemption under this subsection, the terms “livestock use” and “poultry use” do not include livestock or poultry operations that fall under the definition of “animal feeding operation” or “concentrated animal feeding operation” provided in Rule 1.1.

- (3) A well which meets all of the following requirements:
 - (i) Provides water for agricultural irrigation use, as that term is defined in Rule 1.1; and
 - (ii) That is drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day.
- (4) A well which meets the following requirements:
 - (i) Used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas;
 - (ii) The person holding the permit issued by the Railroad Commission of Texas is responsible for drilling and operating the water well; and
 - (iii) The water well is located on the same lease or field associated with the drilling rig.

- (5) Drilling a water well authorized under a permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code, or for production from the well to the extent the withdrawals are required for mining activities regardless of any subsequent use of the water.
 - (6) Drilling a water well for temporary use to supply water to a rig that is actively engaged in drilling a groundwater production well permitted by the District. An exemption granted under Rule 3.5(a)(6) may not exceed 180 days but may be extended until the groundwater production well is complete.
 - (7) Monitoring wells.
 - (8) A well used for an aquifer storage and recovery project, except as provided under District Rule 3.18.
 - (9) A well which meets the following requirements:
 - (i) Provides water for uses that otherwise would require a well to be permitted;
 - (ii) The well owner or operator agrees to allow the well to participate as a monitoring well for the District, including allowing the District representatives to inspect the well site and perform water level monitoring, water quality testing, and well investigations in accordance with Rules 8.3 and 13.4; and
 - (iii) That is drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of groundwater a day.
- (b) A well exempted under Subsection (a) will lose its exempt status if the well is subsequently used for a purpose or in a manner that is not exempt under Subsection (a). To the extent groundwater is produced by a well exempted under Subsection (a)(4) in excess of Railroad Commission of Texas (“RCT”) authorization, the holder of the RCT permit shall obtain the appropriate permit from the District for the excess production. Further, a well exempted under Subsections (a)(4) and (a)(5) of this Rule must be permitted and comply with all District Rules if:
- (1) The groundwater withdrawals that were exempted under Subsection (a)(4) are no longer used solely to supply water for a rig that is actively engaged in drilling or exploration operations for an oil or gas well permitted by the Railroad Commission of Texas; or
 - (2) The groundwater withdrawals that were exempted under Subsection (a)(5) are no longer necessary for mining activities or are greater than the amount necessary for

mining activities specified in the permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code.

- (c) A water well exempted under Subsections (a)(1) through (8) of this Rule shall:
 - (1) Be registered in accordance with Rules promulgated by the District;
 - (2) Be equipped and maintained so as to conform to the District's Rules requiring installation of casing, pipe, and fittings to prevent the escape of groundwater from a groundwater reservoir to any reservoir not containing groundwater and to prevent the pollution of harmful alteration of the character of the water in any groundwater reservoir; and
 - (3) Comply with the requirements of Rule 5.2 regarding the spacing and location of wells.

Rule 3.6 Well Closure and Transfer of Water Wells used for Oil and Gas Operations

- (a) Any water well described by Rule 3.5(a)(4) shall be plugged within 180 days of the rig being removed from the unit where the well is located. The well owner may obtain an extension to plug the well if the well owner submits a written request to the District prior to the expiration of the 180 days. The written request must establish good cause for the extension. The District's Board of Directors has the discretion to grant the extension. Before the water well is plugged, and while the well is not in use, the well must be capped. All capped and plugged wells must meet regulatory standards adopted by the Texas Department of Licensing and Regulations ("TDLR"). The licensed well driller will submit a copy of the state plugging report to the District once it is plugged. The District employees or agents may inspect any well to insure compliance with District Rules.
- (b) If the land owner wishes to keep the rig water supply well for a beneficial use, the following actions must take place before the transfer of the well can be completed:
 - (1) The pump must be removed from the well casing.
 - (2) The District will be notified in writing with the appropriate form provided by the District that the land owner desires to take control of the water well.
 - (3) The District will inspect the well for indications of commingling of aquifers or zones down hole and other defects or signs of deterioration.
- (c) If the well fails inspection, transfer of the water well will not be permitted and the well must be plugged as described above. If the well passes inspection, the land owner will be provided an approved registration for the water well. Use of water from the well must comply with all rules and regulations of the TDLR, Chapter 36 of the Texas Water Code, and these Rules.

Rule 3.7 General Permitting Procedures; Operating Permits Required for Certain Wells

- (a) In addition to the well registration and well report deposit requirements in Rules 3.1 and 3.4, the owner of a new well or well system not exempt from the permitting requirements under Rule 3.5 must obtain an Operating Permit from the District prior to drilling, construction or operating of a new, non-exempt well or well system. The owner of a new or existing well that is exempt from the District's permitting requirements but is subsequently substantially altered in a manner which causes the well to lose its nonexempt status must obtain an Operating Permit. In addition, the owner of an existing well or well system that has obtained a Grandfathered Use Permit for the well must obtain an Operating Permit if the well or well system has been substantially altered in a manner that causes the well or well system to be capable of producing more groundwater than is authorized in the Grandfathered Use Permit for the well or well system.
- (b) The right to produce groundwater from a well or well system permitted by the District may not be transferred to any other well or well system unless authorized by the District or in accordance with Rule 12.1(a)(3).
- (c) A violation of any of the prohibitions in this Rule occurs on the first day that the prohibited drilling, alteration, operation or production begins and continues each day thereafter as a separate violation until appropriate authorization from the District is formally granted by the Board.
- (d) A permit confers only the right to use the permit under the provisions of these Rules and according to its terms. A permit's terms may be modified or amended pursuant to the provisions of these Rules. A permit does not become a vested right of the permit holder. The Board may revoke or amend a permit in accordance with these Rules when reasonably necessary to accomplish the purposes of the District, the District's Rules, Management Plan, the Desired Future Conditions established for the aquifers located in whole or in part within the boundaries of the District, or Chapter 36, Texas Water Code.
- (e) An application pursuant to which a permit or registration has been issued is incorporated in the permit or registration, and the permit or registration is granted on the basis of and contingent upon the accuracy of the information supplied in that application. A finding that false information has been supplied in the application may be grounds to refuse or deny the application or for immediate revocation of the permit or registration.
- (f) Violation of a permit's terms, conditions, requirements, or special provisions is a violation of these Rules and shall be grounds for enforcement.
- (g) For any applications submitted to the District and for which the applicant has requested in writing that such applications be processed concurrently, the District will process and the Board will consider such applications concurrently according to the standards and Rules applicable to each.

- (h) All permits issued by the District are subject to the District's Rules, proportional adjustment regulations, if any, and District Management Plan.

Rule 3.8 Grandfathered Use Permits

- (a) An owner of an existing, non-exempt water well or well system that was completed and operational prior to October 29, 2014 (the Effective Date of these Rules) and that produced groundwater at any time during the Grandfathered Use Period shall apply to the District for a Grandfathered Use Permit during the Grandfathered Use Verification Period on or before December 31, 2015. Failure of an owner of such a well or well system to apply for a Grandfathered Use Permit during the Grandfathered Use Verification Period on or before December 31, 2015 shall preclude the owner from making any future claim or application to the District for historic or grandfathered use under these Rules. All wells or well systems that are not exempt from the District's permitting requirements as provided in Rule 3.5 that do not obtain a Grandfathered Use Permit in accordance with these Rules must obtain an Operating Permit in order to be able to produce groundwater from the well or well system. Grandfathered Use Permit applications shall be on forms prescribed by the District.
- (b) An application for a Grandfathered Use Permit, in addition to the information required under Rule 3.9(a), shall include the following information to the extent that the information exists and is available to the applicant through the exercise of reasonable and diligent efforts:
 - (1) Year in which the well was drilled or the year in which each well in a well system was drilled;
 - (2) Purpose for which the well or well system was drilled and any type of subsequent use of the water;
 - (3) Maximum Grandfathered Use of the well or well system;
 - (4) Evidence of historic and existing use to support the Maximum Grandfathered Use of the well or well system;
 - (5) Legal description of the tract of land on which the well or well system is located; and
 - (6) Any other information determined necessary by the Board.

Rule 3.9 Application Requirements for All Permits

- (a) Each original application for an Operating Permit or Grandfathered Use Permit must contain information as set forth below. Application forms will be provided at the District's office and can be furnished to the applicant upon request. For well systems, the applicant shall provide the information required in this subsection for each well that is part of the

well system. All applications for a permit shall be in writing and sworn to, and shall include the following:

- (1) Name, telephone number, fax number, and mailing address of the applicant and the owner of the land on which the well will be located;
- (2) If the applicant is other than the owner of the property, documentation establishing the applicable authority to construct and operate a well for the proposed use;
- (3) A location map showing the proposed well location and an alternative well location that meets, if applicable, the District's minimum spacing and location requirements, and showing all wells in existence on the date of application within a quarter (1/4) mile radius of the location(s) of the proposed well or well to be modified, which the District may require to be shown on a 7.5 minute United States Department of Interior Topographic Map and/or by latitude and longitude coordinates as measured by a calibrated GPS instrument;
- (4) A statement of the nature and purpose of the proposed use and the amount of water to be used for each purpose;
- (5) A requirement that the water withdrawn under the permit be put to beneficial use at all times;
- (6) Location of the use of the water from the well;
- (7) The estimated rate at which water will be withdrawn from the well, the maximum pumping capacity of the well, method of withdrawal, size of well (inside diameter of the pump [discharge] column pipe and diameter of the well casing), size of well pump, and estimated depth of each well;
- (8) A declaration that the applicant will comply with the District's Rules and all groundwater use permits and plans promulgated pursuant to the District's Rules;
- (9) A water conservation plan or a declaration that the applicant will comply with the District's management plan;
- (10) Drought contingency plan, if the applicant is required to prepare a Drought Contingency Plan by other law;
- (11) A declaration that the applicant will comply with all District well plugging and capping guidelines and report closure to the District and the appropriate state agencies;
- (12) Duration the permit is proposed to be in effect;

- (13) If the groundwater is to be resold, leased, or otherwise transferred to others, whether inside or outside of the District, provide the location to which the groundwater will be delivered, the purpose for which the groundwater will be used, and a copy of the legal documents establishing the right for the groundwater to be sold, leased, or otherwise transferred, including but not limited to any contract for the sale, lease, or transfer of groundwater; and
 - (14) If groundwater is proposed to be transported out of the District, the applicant shall describe the following issues and provide documents relevant to these issues:
 - (i) Availability of water in the District and in the proposed receiving area during the period for which the water supply is requested;
 - (ii) Projected effect of the proposed transport on aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users within the District; and
 - (iii) How the proposed transport is consistent with the approved regional water plan and certified district management plan.
- (b) Permit applications meeting any of the criteria in Rule 3.17(a) shall submit a Hydrogeologic Report to the District that meets the requirements in Rule 3.17.
- (c) All permit applicants must provide notice to all landowners and to all well owners of existing registered or permitted wells that are located within a one-fourth (1/4) mile radius of the existing well or proposed well that is the subject of the application. Notice must be provided by one of the following methods:
- (1) by certified mail, return receipt requested;
 - (2) by first class mail with a certificate of mailing; or
 - (3) by providing the District with a document(s) signed by all landowners and well owners within the designated radius that indicates landowners and well owners received notice of the application.

If any one permit application results in required notifications that exceed 30 entities or individuals or that results in \$100.00 or more of postal expense, the District may allow for notification by public notice in a local newspaper of general circulation in the District. Proof of publication in the local newspaper must be provided to the District before an application is deemed administratively complete.

This notice must be approved by the District prior to mailing or publishing in the local paper and shall contain:

- (1) the name and address of the applicant;

- (2) the date the application was filed;
 - (3) the location and a description of the well that is the subject of the application; and
 - (4) a brief summary of the information in the application, including requested annual production from the proposed well.
- (d) The applicant must provide the District with the following information for the District to declare that the application is administratively complete:
- (1) Information contained in this section, and if the application is for a Grandfathered Use Permit, the information contained in Rule 3.8(b);
 - (2) Proof that notice was provided to landowners and well owners to whom notice is required under this Section;
 - (3) A list of the names and addresses of the property owners notified, if notice was provided by certified mail, return receipt requested, or first class mail with a certificate of mailing; and
 - (4) A Hydrogeologic Report, if required by Rule 3.17(a).

Rule 3.10 Completion of Permit Application Required

The District shall promptly consider and act on each administratively complete application for a permit. If an application is not administratively complete, the District may request the applicant to complete the application. The application will expire if the applicant does not complete the application within ninety (90) days of the date of the District’s request or upon conclusion of an extension granted by the District.

Rule 3.11 Permits Subject to Conditions and Restrictions

Permits issued by the District for permitted wells may be subject to conditions and restrictions placed on the rate and amount of withdrawal, the Rules promulgated by the District, and terms and provisions with reference to the equipping of wells or pumps that may be necessary to prevent waste and achieve water conservation, minimize as far as practicable the drawdown of the water table or the reduction of artesian pressure, lessen interference between wells, or to achieve the Desired Future Conditions established for the aquifers in whole or in part within the boundaries of the District.

Rule 3.12 Considerations for Granting or Denying a Permit Application

- (a) Before granting or denying a permit application, the District must consider whether:
 - (1) The application contains accurate information, all the information requested, and is accompanied by the subscribed administrative fees;

- (2) The water well(s) complies with Chapter 36 of the Texas Water Code, and these Rules, including but not limited to the spacing and production limitations identified in these Rules;
 - (3) The proposed use of water does or does not unreasonably affect existing groundwater and surface water resources or existing permit holders;
 - (4) The proposed use of water is dedicated to a beneficial use;
 - (5) The proposed use of water is consistent with the District's Management Plan;
 - (6) The applicant agrees to avoid waste and achieve water conservation;
 - (7) The applicant has agreed that reasonable diligence will be used to protect groundwater quality and that the applicant will follow well plugging guidelines at the time of well closure; and
 - (8) For those hearings conducted by the State Office of Administrative Hearings under Rule 10.5, the Board shall consider the proposal for decision issued by the State Office of Administrative Hearings.
- (b) The District, to the extent possible, shall issue permits up to the point the total volume of exempt and permitted groundwater production will achieve the applicable Desired Future Conditions established for the aquifers in the District. In issuing permits, the District shall manage total groundwater production on a long-term basis to achieve the applicable Desired Future Conditions and shall consider:
- (1) The Modeled Available Groundwater calculations determined by the Executive Administrator of the Texas Water Development Board;
 - (2) The Executive Administrator of the Texas Water Development Board's estimate of the current and projected amount of groundwater produced under the exemptions in District Rule 3.5;
 - (3) The amount of groundwater authorized under permits previously issued by the District;
 - (4) A reasonable estimate of the amount of groundwater that is actually produced under permits issued by the District; and
 - (5) Yearly precipitation and production patterns.

Rule 3.13 Permit Amendment

- (a) Prior to undertaking any action that would exceed the maximum amount of groundwater authorized to be produced under a permit issued by the District, or change the ownership of a well or permit, the location of a proposed well, the purpose of or location of use of the groundwater produced, or any other applicable term, condition or restriction of an existing permit, the permit holder must first apply for and obtain a permit amendment.
- (b) A major amendment to a permit includes, but is not limited to, a change that would substantially alter the size or capacity of a well, an increase in the annual quantity of groundwater authorized to be withdrawn, a change in the purpose or place of use of the water produced, or a change of location of groundwater withdrawal, except for a replacement well, and any other change that is not a minor amendment. A major amendment to a permit shall not be made prior to notice and hearing.
- (c) All applications for major amendments to any permit issued by the District shall be subject to the considerations in Rule 3.12.
- (d) Amendments that are not major, such as a change in ownership of the land the well or well system is located on or an amendment sought by the permit holder for a decrease in the quantity of groundwater authorized for withdrawal and beneficial use, are minor amendments that may be reviewed and approved by the District. The District is authorized to approve minor permit amendments and may approve such minor amendments without notice and hearing. Such decision by the District must be administratively appealed to the Board of Directors prior to filing suit against the District to overturn the District's decision. The District may also send an application for a minor permit amendment to the Board for consideration, and must do so if the District proposes to deny the application. Any minor amendment sent to the Board for consideration shall be set on the Board's agenda and shall comply with the notice requirements of the Texas Open Meetings Act.
- (e) A permit amendment is not required for any well, well pump, or pump motor repair or maintenance if such repair or maintenance does not substantially alter the well, well pump, or pump motor.
- (f) Changes in the purpose of use from wells authorized under Grandfathered Use Permits require an application for Operating Permit to authorize the new purpose of use from the well(s).

Rule 3.14 Replacement Wells

- (a) No person may replace a well without first having obtained authorization for such work from the District. Authorization for substantial alterations or replacement wells may only be granted following the submission of an application for such a request with the District.
- (b) Applications for replacement wells may be granted by the District without notice or hearing if the replacement well complies with each of the following conditions:

- (1) The replacement well must be drilled within fifty (50) feet of the location of the well being replaced;
- (2) The replacement well or pump shall not be larger in size or capacity than the well being replaced so as to substantially alter the size or capacity of the well; and
- (3) Immediately upon commencing operation of the replacement well, the well owner will cease production from the well being replaced and will immediately plug the well to be replaced.

Rule 3.15 Emergency Authorization by General Manager or Board

- (a) The General Manager or Board may grant an Emergency Permit authorizing the drilling, equipping, completion, substantial altering with respect to size or capacity, or operation of a well.
- (b) The General Manager or Board shall only issue an Emergency Permit upon a finding that:
 - (1) No suitable surface water or permitted groundwater is immediately available to the applicant; and
 - (2) An emergency need for the groundwater exists such that issuance of the permit is necessary to prevent the loss of life or to prevent severe, imminent threats to the public health or safety.
- (c) An Emergency Permit may be granted without notice, hearing, or further action by the Board, or with such notice and hearing as the General Manager or Board deems practical and necessary under the circumstances.
- (d) Emergency Permits may be issued for a term determined by the General Manager or Board based upon the nature and extent of the emergency, such term not to exceed sixty (60) days. Upon expiration of the term, the permit automatically expires and is cancelled.

Rule 3.16 Permits Issued by District; Duration of Permit; Renewal

- (a) Grandfathered Use Permits and Operating Permits that are issued will be valid only for the term set by the District, not to exceed five years from the date of issuance for Grandfathered Use Permits and not to exceed two years from the date of issuance for Operating Permits, or until revoked or amended.
- (b) At least ninety (90) days prior to the date of expiration of a permit, the District shall provide the permit holder notice that an application for renewal is due, along with a renewal application. Renewal applications shall be submitted to the District no later than sixty (60) days prior to the date of expiration of the permit. Renewal applications shall be reviewed and determinations on renewal shall be made by the District, unless the District determines that a hearing is necessary on a renewal application.

- (c) The District shall, without a hearing, renew or approve an application to renew an operating permit before the date on which the permit expires, provided that:
 - (1) The application is submitted in a timely manner and accompanied by any required fees in accordance with District rules; and
 - (2) The permit holder is not requesting a change related to the renewal that would require a permit amendment under District rules.
- (d) The District is not required to renew a permit under District Rule 3.16(c) if the applicant:
 - (1) Is delinquent in paying a fee required by the District;
 - (2) Is subject to a pending enforcement action for a substantive violation of a District permit, order, or rule that has not been settled by agreement with the District or a final adjudication; or
 - (3) Has not paid a civil penalty or has otherwise failed to comply with an order resulting from a final adjudication of a violation of a District permit, order, or rule.
- (e) If the District is not required to renew a permit under District Rule 3.16(d), the permit remains in effect until the final settlement or adjudication on the matter of the substantive violation.
- (f) If the holder of an operating permit, in connection with the renewal of a permit or otherwise, requests a change that requires an amendment to the permit under District Rule 3.13, the permit as it existed before the permit amendment process remains in effect until the later of:
 - (1) The conclusion of the permit amendment or renewal process, as applicable; or
 - (2) A final settlement or adjudication on the matter of whether the change to the permit requires a permit amendment.
- (g) If the permit amendment process results in the denial of an amendment, the permit as it existed before the permit amendment process shall be renewed under District Rule 3.16(c) without penalty, unless subsection (d) of District Rule 3.16 applies to the applicant.
- (h) The district may initiate an amendment to an operating permit, in connection with the renewal of a permit or otherwise, in accordance with District Rule 3.13. If the District initiates an amendment to an operating permit, the permit as it existed before the permit amendment process shall remain in effect until the conclusion of the permit amendment or renewal process, as applicable.
- (i) All permits issued by the District shall state the following:

- (1) The name of the person to whom the permit is issued.
- (2) The date the permit is issued.
- (3) The date the permit is to expire.
- (4) The conditions and restrictions, if any, placed on the rate and amount of withdrawal of groundwater.
- (5) This permit is granted in accordance with the provisions of the District Rules, and acceptance of this permit constitutes an acknowledgment and agreement that the permittee will comply with the Rules of the District.
- (6) This permit confers only the right to operate under the terms and conditions of the permit, and its terms may be modified or amended pursuant to the District Rules or Chapter 36 of the Texas Water Code, as they exist or may be amended, and the directives of the Texas Legislature, or if necessary to achieve the goals and objectives of the District Management Plan. Within sixty (60) calendar days after the date of sale, the Grandfathered Use Permit or Operating Permit holder should notify the District in writing of the name of the new owner of a permitted well. In order for the District to have the most accurate information possible, any person who becomes the owner of a currently permitted well should, within sixty (60) calendar days from the date of the change in ownership, file an application for a permit amendment to effect a transfer of the permit.
- (7) The operation of the well for the authorized withdrawal must be conducted in a non-wasteful manner.
- (8) The permitted well site must be accessible to District representatives for inspection or to perform water level monitoring, water quality testing, and well investigations in accordance with Rules 8.3 and 13.4, and the permittee agrees to cooperate fully in any reasonable inspection of the well and well site by the District representatives.
- (9) The application pursuant to which this permit has been issued is incorporated in the permit, and the permit is granted on the basis of, and contingent upon, the accuracy of the information supplied in that application. A finding that false information has been supplied is grounds for immediate revocation of the permit.
- (10) Violation of a permit's terms, conditions, requirements, or special provisions is punishable by permit revocation, civil penalties, and other enforcement as provided by Section 13 of the District Rules.
- (11) Any other conditions or restrictions the District prescribes; and
- (12) Any other information the District determines necessary.

Rule 3.17 Hydrogeologic Report Requirements

- (a) Any permit application or well registration application that meets the following conditions shall be required to submit a Hydrogeologic Report to the District prior to operating the well(s):
 - (1) An application or registration that requests to operate a well that is equipped to produce 75 gallons per minute or more;
 - (2) An application or registration that requests to transport groundwater produced within the District's boundaries to a location of use outside of the District's boundaries;
 - (3) An application that requests to modify or increase production capacity of a well if such increase would equip the well to produce 75 gallons per minute or more; or
 - (4) An application(s) or registration(s) for two or more wells that request:
 - (i) A combined total production capacity from the wells of 75 gallons per minute or more; and
 - (ii) Approval to drill and produce from wells that are owned or operated by the same person or entity and that would be located within 1/4 mile from one another.

- (b) Hydrogeologic Reports completed under these Rules shall:
 - (1) Describe the results of a pumping test of the well for which a permit is being requested;
 - (2) Address the area of influence of the well for which a permit is being requested;
 - (3) Include an assessment of the geology at the site of the well for which a permit is being requested and a description of the aquifer that will supply water to the well;
 - (4) Provide detailed diagrams of the well construction and copies of water well driller logs and geophysical logs;
 - (5) Initial analysis of water quality before and after pumping; and
 - (6) Be completed in a manner that complies with the guidelines adopted by the District for this purpose.

- (c) Applicants required to complete a Hydrogeologic Report must publish notice in a newspaper of general circulation within Terrell County. The newspaper notice must be published within fourteen (14) days of the date an applicable well registration or permit application is submitted to the District. The newspaper notice shall contain:
 - (1) Name and address of the applicant;
 - (2) Date the application was filed;
 - (3) Location and a description of the well that is the subject of the application; and
 - (4) A brief summary of the information in the application, including requested annual production from the proposed well and that the applicant will conduct a hydrogeologic report in accordance with the District's Rules.

Rule 3.18 Aquifer Storage and Recovery Projects

- (a) The provisions of District Rule 3.18 apply to an ASR recovery well that also functions as an ASR injection well.
- (b) A project operator shall:
 - (1) Register the ASR injection wells and ASR recovery wells associated with the aquifer storage and recovery project with any district in which the wells are located;
 - (2) Each calendar month by the deadline established by the commission for reporting to the commission, provide the District with a copy of the written or electronic report required to be provided to the commission under Section 27.155, Water Code; and
 - (3) Annually by the deadline established by the commission for reporting to the commission, provide the District with a copy of the written or electronic report required to be provided to the commission under Section 27.156, Water Code.
- (c) If an aquifer storage and recovery project recovers an amount of groundwater that exceeds the volume authorized by the commission to be recovered under the project, the project operator shall report to the District the volume of groundwater recovered that exceeds the volume authorized to be recovered in addition to providing the report required by District Rule 3.18(b)(2).
- (d) Except as provided by District Rule 3.18(e), the District may not require a permit for the drilling, equipping, operation, or completion of an ASR injection well or an ASR recovery well that is authorized by the commission.
- (e) The ASR recovery wells that are associated with an aquifer storage and recovery project are subject to the permitting, spacing, and production requirements of the District if the

amount of groundwater recovered from the wells exceeds the volume authorized by the commission to be recovered under the project. The requirements of the District apply only to the portion of the volume of groundwater recovered from the ASR recovery wells that exceeds the volume authorized by the commission to be recovered.

- (f) A project operator may not recover groundwater by an aquifer storage and recovery project in an amount that exceeds the volume authorized by the commission to be recovered under the project unless the project operator complies with the applicable requirements of the District as described by this Rule.
- (g) The District may not assess a production fee or a transportation or export fee or surcharge for groundwater recovered from an ASR recovery well, except to the extent that the amount of groundwater recovered under the aquifer storage and recovery project exceeds the volume authorized by the commission to be recovered.
- (h) The District may assess a well registration fee or other administrative fee for an ASR recovery well in the same manner that the District assesses those fees under District Rules 3 and 14.
- (i) The District may consider hydrogeologic conditions related to the injection and recovery of groundwater as part of an aquifer storage and recovery project in the planning for and monitoring of the achievement of a Desired Future Condition for the aquifer in which the wells associated with the project are located.

SECTION 4.

WELL REPORTING REQUIREMENTS

Rule 4.1 Drilling or Recompletion Records and Reports

- (a) Each person who drills, deepens, completes, or otherwise alters a well shall make, at the time of drilling, deepening, completing, or otherwise altering the well, a legible and accurate well report recorded on forms prescribed by the District or by the Texas Department of Licensing and Regulation (“TDLR”). Each person who drills a water well within the District boundaries shall adhere to the Texas Water Well Drillers and Pump Installers Administrative Rules, Title 16, Part 4, Chapter 76, Texas Administrative Code.
- (b) Each well report required by Subsection (a) of this Rule shall contain:
 - (1) The name and physical address of the well owner;
 - (2) The location of the drilled, deepened, completed, or otherwise altered well, including the physical address of the property on which the well will be located,

and the coordinates of the wellhead location, as determined by a properly functioning and calibrated global positioning system (GPS) unit;

- (3) The type of work being commenced on the well;
 - (4) The proposed use of water from the well;
 - (5) The diameter of the well bore;
 - (6) The date that drilling was commenced and completed, along with a description of the depth, thickness, and nature of each strata penetrated;
 - (7) The drilling method used;
 - (8) The borehole completion method performed on the well, including the depth, size, and nature of the casing installed;
 - (9) A description of the annular seals installed in the well;
 - (10) The surface completion method performed on the well;
 - (11) The location of water bearing strata, including the static level and the date the level was encountered, as well as the measured rate of any artesian flow encountered;
 - (12) The type and depth of any packers installed;
 - (13) A description of the plugging methods used, if applicable;
 - (14) The type of pump installed on the well, including the horsepower rating of the pump, as assigned by the pump manufacturer;
 - (15) The type and results of water tests conducted on the well, including the yield, in gallons per minute, of the pump operated under optimal conditions in a pump test of the well; and
 - (16) A brief description of the water quality found in the well;
- (c) As set forth in Rule 3.4, the person who drilled, deepened, completed, or otherwise altered a well pursuant to this Rule shall, within sixty (60) days after the date the well is completed, file a well report described in Subsections (a) and (b) of this Rule with the District along with well log(s) for the well. Geophysical logs shall also be filed with the District, if available. Failure to submit a well report and well log within sixty (60) days may result in forfeiture of the Well Report Deposit described in Rule 3.4.

Rule 4.2 Groundwater Production Reports

- (a) The holder of any permit issued by the District or the owner of a well which is exempt from the District's permitting requirements under Rule 3.5(a)(4) and (a)(5) must submit a groundwater production report to the District on a form prescribed by the District. The following types of wells are required to record groundwater production on an annual basis and submit production reports as set forth in Subsection (b) of this Rule.
 - (1) Water wells operating under an Operating Permit: The holder of an Operating Permit shall submit a report annually describing groundwater production from the well(s) identified in the permit for the previous year.
 - (2) Water wells used for Oil and Gas Operations: An owner of a water well which is exempt from the District's permitting requirements under Rule 3.5(a)(4) shall submit a report annually describing groundwater production from the well(s) identified in the well registration for the previous year.
 - (3) Water wells operating under a Grandfathered Use Permit: The holder of a Grandfathered Use Permit must submit a report annually describing groundwater production from the well identified in the permit for the previous year.
 - (4) Water wells used for Mining Operations: The owner of a well used for mining operations under a permit issued by the Railroad Commission of Texas under Chapter 134, Natural Resources Code and which is exempt from the District's permitting requirements under Rule 3.5(a)(5) must submit a report annually to the District describing groundwater production from the well identified in the well registration for the previous year.
- (b) Groundwater production reports that are required to be submitted under this Rule shall include the total amount of groundwater produced during the previous year and shall be submitted according to the following schedule:
 - (1) For groundwater production recorded from January 1st through December 31st of each calendar year, the production report must be submitted to the District no later than January 31st of the following calendar year.
- (c) Each report required to be submitted under this Rule shall include the following information:
 - (1) The name of the permit holder or well registrant;
 - (2) The well numbers of each well;
 - (3) The total amount of groundwater produced during the time periods specified in Rule 4.2(b).

- (4) All purposes for which the water was used;
- (5) The amount and source of surface water used by the permit holder; and
- (6) Any other information requested by the District.

Rule 4.3 Groundwater Transportation Reports

- (a) The holder of any permit issued by the District that authorizes the transport of groundwater for use outside of the District or the registrant of a well registered with the District that produces groundwater which is transported outside the District shall submit to the District semiannually a Groundwater Transport Report describing the amount of water transported and used pursuant to the terms of the applicable permit.
- (b) Groundwater Transportation Reports that are required to be submitted under this Rule shall include the total amount of groundwater transported outside the District during the previous six months and shall be submitted according to the following schedule:
 - (1) For groundwater transportation recorded from January 1st through June 30th of each calendar year, the transportation report must be submitted to the District no later than July 31st of the same calendar year; and
 - (2) For groundwater transportation recorded from July 1st through December 31st of each calendar year, the transportation report must be submitted to the District no later than January 31st of the following calendar year.
- (c) Each Groundwater Transport Report required by Subsection (a) above shall be submitted on a form prescribed by the District and shall provide, at a minimum, the following information:
 - (1) The name of the permit holder;
 - (2) The well numbers of each well permitted by the District;
 - (3) The total amount of groundwater transported outside of the district from each well or well system during the previous quarter;
 - (4) The purposes for which the water was transported;
 - (5) The amount and source of surface water transported; and
 - (6) Any other information reasonably requested by the District.

SECTION 5.

SPACING AND LOCATION OF WELLS; WELL COMPLETION

Rule 5.1 Spacing and Location of Existing Wells

Wells drilled prior to the effective date of these Rules shall be drilled in accordance with state law in effect, if any, on the date such drilling commenced and are exempt from the spacing and location requirements of these Rules to the extent that they were lawfully drilled.

Rule 5.2 Spacing Requirements for New Wells

All new wells drilled in the District on or after October 29, 2014 (the Effective Date of these Rules) shall observe the spacing and tract size requirements as follows:

Casing Size	Spacing from Other Well Sites	Spacing from Property Line
The inside diameter, measured in inches, at the screened interval of the casing or well screen installed within the borehole of a well for the purpose of preventing collapse of the borehole, protecting water quality or for any other purpose.	The minimum distance, in feet, that a new well or proposed well site may be located from an existing registered well or approved well site.	The minimum distance, in feet, that a new well or proposed well site may be located from the nearest property line of the tract of land on which it is to be located.
5-inch or less	150 feet	50 feet
More than 5-inch but less than 8-inch	1,200 feet	100 feet
8-inch or larger but less than 10-inch	1,800 feet	200 feet
10-inch or larger	2,400 feet	400 feet

Rule 5.3 Exceptions to Spacing Requirements

If the applicant presents waivers signed by all landowners and well owners whose property or wells would be located within the applicable minimum distance established under these Rules from the proposed well site stating that they have no objection to the proposed location of the well site, District staff may waive certain spacing requirements for the proposed well location and notify the Board at the next scheduled Board meeting. The District staff reserves the right to present any exception application at the next scheduled Board Meeting that the District determines to need Board approval.

SECTION 6.

WATER METER REQUIREMENTS

Rule 6.1 Meter Required for Certain Wells

- (a) The owner of a well that produces water that is transported outside of the District shall equip the well with a meter or a flow measurement device meeting the specifications of these Rules and shall operate the meter or flow meter on the well to measure the flow rate and cumulative amount of groundwater withdrawn from the well.
- (b) Any water meter used by a well owner must be installed according to the manufacturer's published specifications in effect at the time of the meter installation. If no specifications are published, there must be a minimum length of five pipe diameters of straight pipe upstream of the water meter and one pipe diameter of straight pipe downstream of the water meter. These lengths of straight pipe must contain no check valves, tees, gate valves, back flow preventers, blow-off valves, or any other fixture other than those flanges or welds necessary to connect the straight pipe to the meter. In addition, the pipe must be completely full of water throughout the region. All installed meters must measure only groundwater.
- (c) Each meter shall be installed, operated, maintained, and repaired in accordance with the manufacturer's standards, instructions, or recommendations and shall be calibrated to ensure an accuracy reading range of ninety-five percent (95%) to one hundred-five percent (105%) of actual flow.
- (d) The owner of a well that is required to be metered is responsible for the installation, operation, maintenance, and repair of the meter associated with the well.
- (e) Bypasses, which include any device or feature located between the wellhead and the meter that would allow water to be diverted for use before it passes through the meter, are prohibited unless they are also metered, with exception to temporary flushing outlets.

SECTION 7.

PRODUCTION LIMITATIONS

Rule 7.1 Production Limits for Grandfathered Use Permits

The District shall designate the quantity of groundwater authorized to be produced on an annual basis under a Grandfathered Use Permit issued by the District pursuant to the conditions of the District Act, Chapter 36 of the Texas Water Code, the Desired Future Conditions established by the Groundwater Management Area ("GMA") in which the District is located for the aquifers

located in whole or in part within the boundaries of the District, and these Rules, provided, however, that the quantity that may be withdrawn shall not exceed the Maximum Grandfathered Use demonstrated by the applicant and set forth in the permit issued by the District, and determined by the Board.

Rule 7.2 Production Limits for Operating Permits

The District shall designate the quantity of groundwater authorized to be produced on an annual basis under an Operating Permit issued by the District pursuant to the conditions of the District Act, Chapter 36 of the Texas Water Code, the Desired Future Conditions established by the Groundwater Management Area (“GMA”) in which the District is located for the aquifers located in whole or in part within the boundaries of the District, and these Rules, provided, however, that the quantity shall not exceed an amount demonstrated by the applicant and determined by the Board to be necessary for beneficial use during the permit term as set forth in the permit issued by the District.

SECTION 8.

PROHIBITION AGAINST WASTE

Rule 8.1 Waste or Pollution of Groundwater Prohibited

- (a) Groundwater shall not be produced within and used within the District, or produced within the District and used outside the District, in such a manner as to constitute waste or in such a manner that will pollute the groundwater resources of the District.
- (b) A person producing or using groundwater within the District shall use every possible precaution to stop and prevent the waste and pollution of water.
- (c) A person shall not pollute or harmfully alter the character of the aquifer within the boundaries of the District by means of saltwater or other deleterious matter admitted to the aquifer from some other stratum or strata or from the surface of the ground.
- (d) A person under the jurisdiction of the District shall not commit waste as defined in Chapter 36 of the Texas Water Code and these Rules.

Rule 8.2 Orders to Prevent Waste or Pollution

Upon notice to any affected parties and opportunity for a hearing, the Board may adopt orders to prohibit, prevent, or remedy waste or pollution. If the factual basis for the order is disputed, the Board shall direct that an evidentiary hearing be conducted prior to entry of the order. If the Board determines that an emergency exists, requiring the immediate entry of an order to prohibit waste or pollution and protect the public health, safety, and/or welfare, the Board may enter a temporary order without notice and hearing. Such a temporary order shall continue in effect for the lesser of fifteen (15) days or until notice can be provided and a hearing can be conducted by the District.

Rule 8.3 Authority to Investigate Violation of District Rules

The District has the authority to investigate violations of the District’s Rules, including but not limited to suspected waste or pollution violations prohibited under this Section. Pursuant to Rule 13.4, no person shall interfere with the District’s efforts to conduct inspections.

SECTION 9.

CAPPING AND PLUGGING OF WELLS

Rule 9.1 Capping of Wells

The District may require a well to be capped to prevent waste, prevent pollution, or prevent further deterioration of a well casing. The well must remain capped until such time as the conditions that led to the capping requirement are eliminated. If well pump equipment is removed from a well and the well will be re-equipped at a later date, the well must be capped, provided however that the casing is not in a deteriorated condition that would permit comingling of water strata, in which case the well must be plugged. The cap must be capable of sustaining a weight of at least 400 pounds and must be constructed with a water tight seal to prevent entrance of surface pollutants into the well itself, either through the well bore or well casing.

Rule 9.2 Plugging of Wells

- (a) In this Rule, “abandoned well” means a well that is not in use for a period of at least one year. A well is considered to be in use if:
 - (1) The well is not a deteriorated well and contains the casing, pump, and pump column in good condition;
 - (2) The well is not a deteriorated well and has been capped;
 - (3) The water from the well has been put to an authorized beneficial use, as defined by the Texas Water Code and these Rules;
 - (4) The well is used in the normal course and scope and with the intensity and frequency of other similar users in the general community; or
 - (5) The owner is participating in a federal conservation program as defined by Chapter 36, Texas Water Code or a similar governmental program.
- (b) A deteriorated or abandoned well must be plugged in accordance with the Texas Department of Licensing and Regulation, Water Well Drillers and Pump Installers Rules (16 Texas Administrative Code, Chapter 76). It is the responsibility of the landowner to

see that such a well is plugged to prevent pollution of groundwater and to prevent injury to persons and animals. Registration of the well is required prior to, or in conjunction with, well plugging.

- (c) Prior to plugging a well, casing, liner, or bore hole, an application to plug the well shall be submitted to the District. Each application to plug a well shall be sworn-to and certified in writing. Written authorization shall be obtained from the District prior to initiating any plugging operation. Once written authorization has been granted by the District, the District shall be notified at least twenty-four (24) hours prior to initiation of the plugging operation by telephone, e-mail, mail, or in person at the District Office and the well must be plugged in accordance with the Texas Department of Licensing and Regulation, Water Well Drillers and Pump Installers Rules (16 Texas Administrative Code, Chapter 76).
- (d) The application pursuant to which District authorization to plug a well has been granted in writing is incorporated into such written authorization, and the authorization to plug a well is granted on the basis of, and contingent upon, the accuracy of the information supplied in the application to plug the well. A finding that false information has been supplied is grounds for revocation of the authorization to plug the well and the applicant may be subject to enforcement in accordance with Rule 13.2.
- (e) Any person that plugs a well in the District after receiving District authorization must submit a copy of the plugging report to the District and the Texas Department of Licensing and Regulation within thirty (30) days of plugging completion.
- (f) If the owner or lessee fails or refuses to plug or cap the well in compliance with this rule and District standards within thirty (30) days after being requested to do so in writing by an officer, agent, or employee of the District, then, upon Board approval, any person, firm, or corporation employed by the District may go on the land and plug or cap the well safely and securely, pursuant to Section 36.118 of the Texas Water Code.

Rule 9.3 Expenses Incurred by the District

Reasonable expenses incurred by the District in plugging or capping a well constitute a lien on the land on which the well is located.

SECTION 10.

HEARINGS

Rule 10.1 Hearings Generally

- (a) A public hearing may be held on any matter within the jurisdiction of the Board, if the Board deems a hearing to be in the public interest or necessary to effectively carry out the duties and responsibilities of the District. The District conducts four general types of hearings under this Section:
 - (1) Hearings involving the issuance of permits or permit amendments, in which the rights, duties, or privileges of a party are determined after an opportunity for an adjudicative hearing;
 - (2) Rulemaking hearings involving matters of general applicability that implement, interpret, or prescribe the law or District policy, or that describe the procedure or practice requirements of the District;
 - (3) Show cause hearings, in which the obligation and authority of the District to impose civil penalties is considered under specific relevant circumstances, as set forth in Rule 13.6; and
 - (4) Hearings on the Desired Future Conditions proposed for the District, as set forth in Rule 10.13.
- (b) Any matter designated for hearing before the Board may be heard by a quorum of the Board, referred by the Board for a hearing before a Hearing Examiner, by a quorum of the Board along with an appointed Hearing Examiner who officiates during the hearing, or the State Office of Administrative Hearings if required under Rule 10.5.
- (c) Any hearing may or may not be scheduled during the District's regular business hours, Monday through Friday of each week, except District holidays. All hearings shall be held at the location set forth in the notice. Any hearing may be continued from time to time and date to date without notice after providing the initial notice.
- (d) Continuance:
 - (1) The District may continue hearings or other proceedings from time to time and from place to place without the necessity of publishing, serving, mailing, or otherwise issuing a new notice.
 - (2) If a hearing or other proceeding is continued and a time and place for the hearing or other proceeding to reconvene are not publicly announced at the hearing or other proceeding before it is recessed, a notice of any further setting of the hearing or other proceeding will be delivered at a reasonable time to persons who request notice at the initial hearing, and any other person deemed appropriate, but it is not necessary to post or publish a notice of the new setting.

- (3) A continuance may not exceed the time limit for the issuance of a final decision under Section 36.4165, Texas Water Code.
- (e) Permit Hearings:
- (1) Permit Applications and Amendments: The District shall hold a hearing for each activity for which a permit or permit amendment is required pursuant to Section 3 of these Rules, subject to the exception in Rule 3.15. A hearing involving permit matters may be scheduled before a Hearing Examiner.
 - (2) The District shall hold a permit hearing on major permit amendments and may hold a hearing on minor permit amendments, permit revocations, and permit renewals.
- (f) Rulemaking Hearings:
- (1) District Management Plan: The Board shall hold a hearing to consider adoption of a new District Management Plan.
 - (2) Rules: The Board shall hold a hearing to consider adoption of rules or any revisions to the District's rules.
 - (3) Other Matters: A public hearing may be held on any matter within the jurisdiction of the Board if the Board determines that a hearing is in the public interest or necessary to effectively carry out the duties and responsibilities of the District.

Rule 10.2 Rulemaking Hearings

- (a) Rulemaking hearing notice shall include a brief explanation of the subject matter of the hearing, the time, date, and place of the hearing, location or Internet site at which a copy of the proposed Rules may be reviewed or copied, if the District has a functioning Internet site, and any other information deemed relevant by the Board or the District staff.
- (b) Not less than twenty (20) calendar days prior to the date of the hearing, the District shall:
 - (1) Post notice in a place readily accessible to the public at the district office;
 - (2) Provide notice to the county clerk of Terrell County;
 - (3) Publish notice in one or more newspapers of general circulation in the District;
 - (4) Provide notice by mail, facsimile, or electronic mail to any person who has requested notice; and
 - (5) Make available a copy of all proposed Rules at a place accessible to the public during normal business hours, and post an electronic copy on the District's Internet site, if the District has a functioning Internet site.

- (c) A person may submit to the District a written request for notice of a rulemaking hearing. A request is effective for the remainder of the calendar year in which the request is received by the District. To receive notice of a rulemaking hearing in a later year, a person must submit a new request. An affidavit of an officer or employee of the District establishing attempted service by first class mail, fax, or e-mail to the person in accordance with the information provided by the person is proof that notice was provided by the District.
- (d) Failure to provide notice under Subsection (c) does not invalidate an action taken by the District at a rulemaking hearing.
- (e) A person participating in a rulemaking hearing shall complete a hearing registration form stating the person's name, address, and whom the person represents, if applicable.
- (f) The Presiding Officer shall prepare and keep a record of each rulemaking hearing in the form of an audio or video recording or a court reporter transcription.
- (g) The District may use an informal conference or consultation to obtain the opinions and advice of interested persons about contemplated Rules and may appoint advisory committees of experts, interested persons, or public representatives to advise the District about contemplated Rules.
- (h) A person with a real property interest in groundwater located within the District's jurisdictional boundaries may petition the District to adopt a rule or modify a rule of the District.
 - (1) A petition submitted under this Rule shall be made on the Petition to Adopt or Modify Rules form adopted and prescribed by the Board and must include the following information:
 - (i) the text of the proposed rule or rule modification;
 - (ii) a written explanation of the proposed rule or rule modification's intended purpose;
 - (iii) proof that the person submitting the petition has a real property interest in groundwater located within the District's jurisdictional boundaries; and
 - (iv) the full name of the person submitting the petition and the person's contact information, including phone number, physical address, mailing address, and email address, if any.
 - (2) If a person is unable to comply with any procedures required under this Rule, then the person must submit to the District, on the same day that the person submits a petition under this Rule, a written explanation as to why compliance with the required procedure(s) is not possible and must submit a written request that the

Board waive the specific procedure(s) at issue. Upon receipt of a written explanation and request as described herein, the Board may, at its sole discretion, waive any procedure set forth under this Rule. A petition may be denied for failure to comply with the requirements under this Rule.

- (3) Within 90 days after submission of a petition, the Board shall consider the petition and shall either:
 - (i) deny the petition and provide an explanation for the denial; or
 - (ii) engage in rulemaking consistent with the granted petition.
- (4) The petitioner shall reimburse the District for any costs incurred by the District to provide notice of a rulemaking hearing under this Rule.
- (5) Nothing in this Rule may be construed to create a private cause of action for a decision to accept or deny a petition filed under this Rule.

Rule 10.3 Permit Hearings

- (a) If the Board or District staff schedules a hearing on an application for a permit or permit amendment, the District shall give notice of the hearing as provided in this Section.
- (b) Notice may be provided under this Rule for permit renewals minor amendments and revocations if the District staff determines that a hearing is required.
- (c) The Board or District staff may schedule more than one permit application for consideration at a hearing.
- (d) Not later than the tenth (10th) day before the date of a permit hearing, the District shall:
 - (1) Post notice at a place readily accessible to the public in the District office;
 - (2) Provide notice of the hearing to the county clerk in Terrell County, whereupon the county clerk shall post the notice on a bulletin board at a place convenient to the public in the county courthouse;
 - (3) Provide notice by regular mail to the applicant; and
 - (4) Provide notice by mail, fax, or e-mail to any person who has requested notice under this Section.
- (e) The notice provided under Subsection (d) must include:
 - (1) The name and address of the applicant;

- (2) The address or approximate location of the well or proposed well;
 - (3) A brief explanation, including any requested amount of groundwater, the purpose of the proposed use, and any change in use, if applicable;
 - (4) A general explanation of the manner by which a person may contest the permit, permit amendment, or permit renewal, including information regarding the need to appear at the hearing or submit a motion for continuance on good cause;
 - (5) The time, date, and location of the hearing; and
 - (6) Any other information the Board or District staff deems relevant and appropriate to include in the notice.
- (f) Any person having an interest in the subject matter of a hearing may receive written notice of the hearing if the person submits to the District a written request to receive notice of the hearing. The request remains valid for a period of one year from the date of the request, after which time a new request must be submitted. An affidavit of an officer or employee of the District establishing attempted service by first class mail, fax, or e-mail to the person in accordance with the information provided by the person is proof that notice was provided by the District. Failure by the District to provide written notice to a person under this subsection does not invalidate any action taken by the Board.
- (g) An administratively complete application shall be set for a hearing on a specific date within sixty (60) days after the date it is administratively complete. A hearing shall be held within thirty-five (35) days after the setting of the date, and the District shall act on the application within sixty (60) days after the date the final hearing on the application is concluded.
- (h) The board may take action on any uncontested application at a properly noticed public meeting held at any time after the public hearing at which the application is scheduled to be heard. The board may issue a written order to:
- (1) Grant the application;
 - (2) Grant the application with special conditions; or
 - (3) Deny the application.
- (i) An applicant may, not later than the 20th day after the date the board issues an order granting the application, demand a contested case hearing if the order:
- (1) Includes special conditions that were not part of the application as finally submitted; or
 - (2) Grants a maximum amount of groundwater production that is less than the amount requested in the application.

Rule 10.4 Contested Case Permit Hearings and Designation of Parties

- (a) The following may request a contested case hearing on an application for a permit or permit amendment:
 - (1) District staff;
 - (2) The applicant; or
 - (3) An affected person.
- (b) A request for a contested case hearing must substantially comply with the following:
 - (1) Give the name, address, and daytime telephone number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and, where possible, fax number, who shall be responsible for receiving all official communications and documents for the group;
 - (2) Identify the person's personal justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language how and why the requestor believes he or she will be affected by the activity in a manner not common to members of the general public;
 - (3) Set forth the grounds on which the person is protesting the application;
 - (4) Request a contested case hearing;
 - (5) Be timely under Subsection (d); and
 - (6) Provide any other information required by the public notice of application.
- (c) If a person or entity is requesting a contested case hearing on more than one application, a separate request must be filed in connection with each application.
- (d) A hearing request is considered timely if it complies with Subsection (b) and:
 - (1) Is submitted in writing to and received by the District prior to the date of the hearing and action by the Board on the application; or
 - (2) The person appears before the Board at the hearing and opposes the application.

Requests for contested case hearings to be conducted by the State Office of Administrative Hearings made under Rule 10.5 shall be made in writing and submitted to

the District by fax, mail, hand delivery, or e-mail no later than five days prior to the date the hearing on the application is scheduled to begin.

- (e) The written or oral submittal of a hearing request does not, in itself, mean that a hearing will be declared to be a contested case. The Presiding Officer will evaluate the contested case hearing request at the hearing and may:
 - (1) Determine that a hearing request does not meet the requirements of Subsection (b) and deny the request;
 - (2) Determine that the person requesting the hearing is not an affected person related to the application and deny the hearing request;
 - (3) Determine that a hearing request meets the requirements of Subsection (b), and designate the matter as a contested hearing upon determining that the person is an affected person; or
 - (4) Refer the case to an evidentiary hearing. The Presiding Officer may hold a hearing on any issue related to the determination of whether to declare a matter as a contested case.
- (f) A matter is considered to be contested if a hearing request is made pursuant to Subsection (b), made in a timely manner pursuant to Subsection (d), and declared as such by the Presiding Officer. Any case not declared a contested case under this Rule is an uncontested case.
- (g) Preliminary Hearing to Designate Parties:
 - (1) Parties to a contested permit hearing shall be designated as determined by the Presiding Officer. The Presiding Officer shall make a decision on party status at a preliminary hearing held prior to the commencement of the evidentiary hearing on the application. Unless the District is required to contract with the State Office of Administrative Hearings under Rule 10.5, the District may conduct the preliminary hearing to determine party status on the same day and immediately before the evidentiary hearing on the application is scheduled to begin.
 - (2) The District's General Manager and the applicant are automatically designated as parties.
 - (3) In order to be admitted as a party, persons other than the automatic parties must appear at the hearing in person or by representation and seek to be designated as a party.
 - (4) A person requesting a contested case hearing that is unable to attend the first day of the proceeding must submit a continuance request to the Board, in writing,

stating good cause for his inability to appear at the proceeding. The Presiding Officer may grant or deny the request, at his discretion.

- (5) If the board determines that no person who requested a contested case hearing has standing or that no justiciable issues are raised, the board may take any action authorized under District Rule 10.3(h).
- (h) After parties are designated, no other person may be admitted as a party unless, in the judgment of the Presiding Officer, there exists good cause and the hearing will not be unreasonably delayed.
- (i) All testimony presented in a contested case hearing shall be subject to cross-examination.
- (j) Neither the Presiding Officer nor a Board member may communicate, directly or indirectly, in connection with any issue of fact or law in a contested case with any agency, person, party, or representative, except with notice and an opportunity for all parties to participate. This provision does not prevent communication with District staff.
- (k) If, during a contested case hearing, all parties contesting the application withdraw their protests or the parties reach a negotiated or agreed settlement which, in the judgment of the Presiding Officer, settles the facts or issue in controversy, the proceeding will be deemed an uncontested case.

Rule 10.5 Contested Case Hearings Conducted by the State Office of Administrative Hearings

- (a) If timely requested by the applicant or other party to a contested case hearing, the District shall contract with the State Office of Administrative Hearings to conduct the hearing on the application.
- (b) The Board shall determine whether the hearing held by the State Office of Administrative Hearings will be held in Travis County or at the District office or other regular meeting place of the Board.
- (c) The party requesting that the hearing be conducted by the State Office of Administrative Hearings shall pay all costs associated with the contract for the hearing and shall make a deposit with the District in an amount that is sufficient to pay the estimated contract amount before the hearing begins. If the total cost for the contract exceeds the amount deposited by the paying party at the conclusion of the hearing, the party that requested the hearing shall pay the remaining amount due to pay the final price of the contract. If there are unused funds remaining from the deposit at the conclusion of the hearing, the unused funds shall be refunded to the paying party. The District may assess other costs related to hearings conducted under this Rule as authorized under Chapter 36, Texas Water Code, or the District Rules.

- (d) An administrative law judge who conducts a contested case hearing shall consider applicable district rules or policies in conducting the hearing, but the District may not supervise the administrative law judge.
- (e) The District shall provide the administrative law judge with a written statement of applicable rules or policies.
- (f) The District may not attempt to influence the finding of facts or the administrative law judge's application of the law in a contested case except by proper evidence and legal argument.
- (g) The board may (i) remand an issue germane to the application or the proposed findings of fact and conclusions of law, (ii) change a finding of fact or conclusion of law made by the administrative law judge, or (iii) vacate or modify an order issued by the administrative judge, only if the board determines:
 - (1) That the administrative law judge did not properly apply or interpret applicable law, District rules, written policies provided under Section 36.416(e), or prior administrative decisions;
 - (2) That a prior administrative decision on which the administrative law judge relied is incorrect or should be changed; or
 - (3) That a technical error in a finding of fact should be changed.
- (h) A final decision issued by the Board must be in writing and must either adopt the findings of fact and conclusions of law as proposed by the administrative law judge or include revised findings of fact and conclusions of law consistent with Rule 10.5(g).
- (i) Notwithstanding any other Rule, for hearings conducted by the State Office of Administrative Hearings, the Board shall issue a final decision not later than the 180th day after the date of receipt of the final proposal for decision from State Office of Administrative Hearings. The deadline may be extended if all parties agree to the extension.
- (j) Notwithstanding any other Rule, if a motion for rehearing is filed and granted by a board under Section 36.412, Texas Water Code, the Board shall make a final decision on the application not later than the 90th day after the date of the decision by the Board that was subject to the motion for rehearing.
- (k) Notwithstanding any other Rule, the Board is considered to have adopted the final proposed for decision of the administrative law judge as a final order on the 181st day after the date the administrative law judge issued the final proposed for decision if the Board has not issued a final decision by:

- (1) adopting the findings of fact and conclusions of law as proposed by the administrative law judge; or
 - (2) issuing revised findings of fact and conclusions of law as set forth in this Rule and the Texas Water Code.
- (1) A proposed final decision adopted under Rule 10.5(k) is final, immediately appealable, and not subject to a request for rehearing.

Rule 10.6 Procedures for Permit Hearings Conducted by the District

- (a) Authority of Presiding Officer: The Presiding Officer may conduct the hearing or other proceeding in the manner the Presiding Officer deems most appropriate for the particular hearing. The Presiding Officer has the authority to:
- (1) Set hearing dates, other than the hearing date set by the Board or District staff under Rule 10.3;
 - (2) Convene the hearing at the time and place specified in the notice for public hearing;
 - (3) Designate the parties to a hearing;
 - (4) Admit evidence that is relevant to an issue at the hearing, exclude evidence that is irrelevant, immaterial, or unduly repetitious, and rule on motions and on the admissibility of evidence;
 - (5) Establish the order for presentation of evidence;
 - (6) Administer oaths to all persons presenting testimony;
 - (7) Examine witnesses;
 - (8) Ensure that information and testimony are introduced as conveniently and expeditiously as possible, without prejudicing the rights of any person participating in the proceeding;
 - (9) Conduct public hearings in an orderly manner in accordance with these Rules;
 - (10) Recess any hearing from time to time and place to place; and
 - (11) Exercise any other appropriate powers necessary or convenient to effectively carry out the responsibilities of Presiding Officer.
- (b) Hearing Registration Forms: Each person attending and participating in a hearing of the District must submit on a form provided by the District the following information: the

person's name; the person's address; who the person represents if other than himself; whether the person wishes to testify; and any other information relevant to the hearing.

- (c) **Public Comment:** Documents that are filed with the Board that comment on an application but that do not request a hearing will be treated as public comment. The Presiding Officer may allow any person, including any District employee, to provide comments at a hearing on an uncontested application.
- (d) Any interested person may appear at a hearing in person or may appear by representative provided the representative is fully authorized to speak and act for the principal. Such person or representative may present evidence, exhibits, or testimony, or make an oral presentation as determined by the Board. Any partner may appear on behalf of a partnership. A duly authorized officer or agent of a public or private corporation, political subdivision, governmental agency, municipality, association, firm, or other entity may appear on behalf of the entity. A fiduciary may appear for a ward, trust, or estate. A person appearing in a representative capacity may be required to prove proper authority.
- (e) After the Presiding Officer calls a hearing to order, the Presiding Officer shall announce the subject matter of the hearing and the order and procedure for presentation.
- (f) The Presiding Officer may prescribe reasonable time limits for the presentation of evidence and oral argument.
- (g) If the Board has not acted on the application, in the discretion of the Presiding Officer, any person who testifies at a hearing may supplement that testimony by filing additional written material with the Presiding Officer within ten (10) days after the date of conclusion of the hearing. A person who files additional written material with the Presiding Officer must also provide the material, not later than the tenth day after the date of the hearing, to any person who provided comments on an uncontested application or any party to a contested hearing. A person who receives additional written material under this subsection may file a response to the material with the Presiding Officer not later than the tenth day after the date the material was received. Cumulative, repetitive, and unduly burdensome evidence filed under this subsection will not be considered by the Board.
- (h) Every person, representative, witness, and other participant in a proceeding must conform to ethical standards of conduct and must exhibit courtesy and respect for all other participants. No person may engage in any activity during a proceeding that interferes with the orderly conduct of District business. If, in the judgment of the Presiding Officer, a person is acting in violation of this provision, the Presiding Officer will first warn the person to refrain from engaging in such conduct. Upon further violation by the same person, the Presiding Officer may exclude that person from the proceeding for such time and under such conditions as the Presiding Officer deems necessary.
- (i) **Written testimony:** When a proceeding will be expedited and the interest of the persons participating in the hearing will not be prejudiced substantially, testimony may be received in written form. The written testimony of a witness, either in narrative or question and

answer form, may be admitted into evidence upon the witness being sworn and identifying the testimony as a true and accurate record of what the testimony would be if given orally. On the motion of a party to the hearing, the Presiding Officer may exclude written testimony if the person who submits the testimony is not available for cross-examination by phone, a deposition before the hearing, or other reasonable means.

- (j) No person will be allowed to appear in any hearing or other proceeding whose appearance, in the opinion of the Presiding Officer, is for the sole purpose of unduly broadening the issues to be considered in the hearing or other proceeding.

Rule 10.7 Recording

- (a) A record of a hearing in the form of an audio or video recording or a court reporter transcription shall be prepared and kept by the Presiding Officer in a contested hearing. The Presiding Officer shall have the hearing transcribed by a court reporter upon a request by a party to a contested hearing. The Presiding Officer may assess court reporter transcription costs against the party requesting the transcription or among the parties to the hearing. The Presiding Officer may exclude a party from further participation in a hearing for failure to pay in a timely manner costs assessed against that party under this Rule, unless the parties have agreed that the costs assessed against such party will be paid by another party.
- (b) Uncontested Hearings: In an uncontested hearing, the Presiding Officer may use the means available in Subsection (a) to record a proceeding or may substitute meeting minutes or the report required under Rule 10.8 for a method of recording the hearing.

Rule 10.8 Proposal For Decision

- (a) The Presiding Officer shall determine whether to submit a Proposal for Decision to the Board under this Rule. If the Presiding Officer determines to submit a Proposal for Decision, it must:
 - (1) Be submitted within thirty (30) days after the date the hearing is finally concluded; and
 - (2) Include a summary of the subject matter of the hearing, a summary of the evidence or public comments received, and the Presiding Officer's recommendations for Board action on the subject matter of the hearing. A copy of the report shall be provided by the Presiding Officer or District staff to the applicant, each designated party, and each person who provided comments. A person who receives a copy of the report may submit written exceptions to the report to the Board.

- (b) The Presiding Officer may direct a District representative or employee to prepare the hearing report and recommendations under this Rule.
- (c) The board shall consider the proposal for decision at a final hearing. Additional evidence may not be presented during a final hearing. The parties may present oral argument at a final hearing to summarize the evidence, present legal argument, or argue an exception to the proposal for decision.

Rule 10.9 Board Action

The Board shall act on a permit or permit amendment application not later than the sixtieth (60th) day after the date the final hearing on the application is concluded. For hearings conducted by the State Office of Administrative Hearings, the Board shall make the final decision on the application within sixty (60) days after the issuance of the proposal for decision by the State Office of Administrative Hearings. In a hearing in which the District has contracted with the State Office of Administrative Hearings to conduct the contested case hearing, the Board has the authority to make a final decision on consideration of a proposal for decision issued by the State Office of Administrative Hearings administrative law judge consistent with Section 2001.058, Government Code.

Rule 10.10 Request for Rehearing or Findings and Conclusions

- (a) An applicant in a contested or uncontested hearing on an application or a party to a contested hearing may appeal a decision of the Board by requesting a rehearing or written findings and conclusions within twenty (20) calendar days of the date of the Board's decision.
- (b) A rehearing request must be mailed to the District in writing and must state clear and concise grounds for the request. If the original hearing was a contested hearing, the person requesting a rehearing must provide copies of the request to all parties to the hearing. Such a hearing is mandatory with respect to any decision or action of the Board before any appeal to District Court may be brought. Any appeal to District Court shall be limited to the issues and grounds raised in the motion for rehearing.
- (c) If the hearing on the application was considered uncontested and the decision of the Board on the application is materially inconsistent with the relief sought in the application, the applicant shall be afforded an opportunity to submit a request for a contested case in conjunction with the request for rehearing. If the request for rehearing is timely filed, the accompanying request for a contested case hearing shall be deemed timely filed for all purposes under these Rules. On receipt of a timely written request, the Board shall make written findings and conclusions regarding a decision of the Board on a permit or permit amendment application.
- (d) The Board shall provide certified copies of the findings and conclusions to the person who requested them, and to each person who provided comments or each designated party, not later than the thirty-fifth (35th) day after the date the Board receives the request. A person

who receives a certified copy of the findings and conclusions from the Board may request a rehearing before the Board not later than the twentieth (20th) day after the date the Board issues the findings and conclusions.

- (e) The Board's decision is final if no request for rehearing is made within the specified time, upon the Board's denial of the request for rehearing, or upon rendering a decision after rehearing. If the rehearing request is granted by the Board, the date of the rehearing will be within forty-five (45) calendar days thereafter. The failure of the Board to grant or deny the request for rehearing within ninety (90) calendar days of the date of submission shall constitute a denial of the request.
- (f) The Board shall consolidate requests for rehearing filed by multiple parties to the contested case hearing but only one rehearing may be considered per matter.

Rule 10.11 Decision; When Final

- (a) A decision by the Board on a permit or permit amendment application is final:
 - (1) If a request for rehearing is not filed on time, on the expiration of the period for filing a request for rehearing; or
 - (2) If a request for rehearing is filed on time, on the date:
 - (i) The Board denies the request for rehearing; or
 - (ii) The Board renders a written decision after rehearing.
- (b) Except as provided by Subsection (c), an applicant or a party to a contested hearing may file suit against the District under Section 36.251, Texas Water Code, to appeal a decision on a permit or permit amendment application not later than the sixtieth (60th) day after the date on which the decision becomes final.
- (c) An applicant or a party to a contested hearing may not file suit against the District under Section 36.251, Texas Water Code, if a request for rehearing was not filed on time.

Rule 10.12 Consolidated Notice and Hearing on Permit Applications

- (a) Except as provided by Subsection (b), the Board shall process applications from a single applicant under consolidated notice and hearing procedures on written request by the applicant.
- (b) The Board is not required to use consolidated notice and hearing procedures to process separate permit or permit amendment applications from a single applicant if the Board cannot adequately evaluate one application until it has acted on another application.

Rule 10.13 Hearings on Adoption of Desired Future Conditions

For hearings that the District is required to hold for the adoption of its Desired Future Conditions, not less than ten (10) days prior to the date of the hearing, the District shall post notice that includes the following information:

- (1) The proposed Desired Future Condition(s) and a list of any other agenda items;
- (2) The date, time, and location of the meeting or hearing;
- (3) The name, telephone number, and address of the person to whom questions or requests for additional information may be submitted;
- (4) The name of the other groundwater districts in the same Groundwater Management Area as the District; and
- (5) Information on how the public may submit comments.

The notice required under this subsection shall be provided in the same manner as that for rulemaking hearings under Rule 10.2(b).

Rule 10.14 Appeal of Desired Future Conditions

- (a) Not later than the 120th day after the date on which the District adopts a Desired Future Condition under Section 36.108(d-4), Texas Water Code, an “affected person” may file a petition with the District requiring that the District contract with the office to conduct a hearing appealing the reasonableness of the Desired Future Condition. The petition must provide evidence that the District did not establish a reasonable Desired Future Condition of the groundwater resources in the groundwater management area.
- (b) Not later than the 10th day after receiving a petition described by Subsection (b), the District shall submit a copy of the petition to the development board. On receipt of the petition, the development board shall conduct:
 - (1) An administrative review to determine whether the desired future condition established by the district meets the criteria in Section 36.108(d); and
 - (2) A study containing scientific and technical analysis of the desired future condition, including consideration of:
 - (i) The hydrogeology of the aquifer;
 - (ii) The explanatory report provided to the development board under Section 36.108(d-3);
 - (iii) The factors described under Section 36.108(d); and

- (iv) Any relevant:
 - A. Groundwater availability models;
 - B. Published studies;
 - C. Estimates of total recoverable storage capacity;
 - D. Average annual amounts of recharge, inflows, and discharge of groundwater; or
 - E. Information provided in the petition or available to the development board.
- (c) The development board must complete and deliver to the office a study described by District Rule 10.14(b)(2) not later than the 120th day after the date the development board receives a copy of the petition.
- (d) For the purposes of a hearing conducted under District Rule 10.14;
 - (1) The office shall consider the study described by District Rule 10.14(b)(2) and the Desired Future Conditions explanatory report submitted to the development board under Section 36.108(d-3), Texas Water Code, to be part of the administrative record; and
 - (2) The development board shall make available relevant staff as expert witnesses if requested by the office or a party to the hearing.
- (e) Not later than the 60th day after receiving a petition under District Rule 10.14(a), the District shall:
 - (1) Contract with the office to conduct the contested case hearing requested under District Rule 10.14; and
 - (2) Submit to the office a copy of any petitions related to the hearing requested under District Rule 10.14(a) and received by the district.
- (f) A hearing under District Rule 10.14 must be held:
 - (1) At the District office or regular meeting location of the board; and
 - (2) In accordance with Chapter 2001, Government Code, and the rules of the office.
- (g) During the period between the filing of the petition and the delivery of the study described by District Rule 10.14(b)(2), the District may seek the assistance of the Center for Public Policy Dispute Resolution, the development board, or another alternative dispute resolution

system to mediate the issues raised in the petition. If the District and the petitioner cannot resolve the issues raised in the petition, the office will proceed with a hearing as described by this section.

- (h) The district shall provide:
 - (1) General notice of the hearing; and
 - (2) Individual notice of the hearing to:
 - (i) The petitioner;
 - (ii) Any person who has requested notice;
 - (iii) Each nonparty district and regional water planning group located in the same management area as a district named in the petition;
 - (iv) The development board; and
 - (v) The Commission.
- (i) Before a hearing conducted under this section, the office shall hold a prehearing conference to determine preliminary matters, including:
 - (1) Whether the petition should be dismissed for failure to state a claim on which relief can be granted;
 - (2) Whether a person seeking to participate in the hearing is an affected person who is eligible to participate; and
 - (3) Which affected persons shall be named as parties to the hearing.
- (j) The petitioner shall pay the costs associated with the contract for the hearing under this section. The petitioner shall deposit with the District an amount sufficient to pay the contract amount before the hearing begins. After the hearing, the office may assess costs to one or more of the parties participating in the hearing and the District shall refund any excess money to the petitioner. The office shall consider the following in apportioning costs of the hearing:
 - (1) The party who requested the hearing;
 - (2) The party who prevailed in the hearing;
 - (3) The financial ability of the party to pay the costs;
 - (4) The extent to which the party participated in the hearing; and

- (5) Any other factor relevant to a just and reasonable assessment of costs.
- (k) On receipt of the administrative law judge's findings of fact and conclusions of law in a proposal for decision, including a dismissal of a petition, the District shall issue a final order stating the District's decision on the contested matter and the District's findings of fact and conclusions of law. The District may change a finding of fact or conclusion of law made by the administrative law judge, or may vacate or modify an order issued by the administrative law judge, as provided by Section 2001.058(e), Government Code.
 - (1) If the District vacates or modifies the proposal for decision, the District shall issue a report describing in detail the District's reasons for disagreement with the administrative law judge's findings of fact and conclusions of law. The report shall provide the policy, scientific, and technical justifications for the District's decision.
- (l) If the District in its final order finds that a Desired Future Condition is unreasonable, not later than the 60th day after the date of the final order, all districts in GMA 7 shall reconvene in a joint planning meeting for the purpose of revising the Desired Future Condition found to be unreasonable. The districts in GMA 7 shall follow the procedures in Section 36.108, Water Code, to adopt new Desired Future Conditions applicable to the district that received the petition.
- (m) A final order by the District finding that a Desired Future Condition is unreasonable does not invalidate the adoption of a Desired Future Condition by a district that did not participate as a party in the hearing conducted under this section.
- (n) The administrative law judge may consolidate hearings requested under this section that affect two or more districts. The administrative law judge shall prepare separate findings of fact and conclusions of law for each district included as a party in a multidistrict hearing.
- (o) A final District order issued under District Rule 10.14 may be appealed to a district court with jurisdiction over any part of Terrell County. An appeal under this subsection must be filed with the district court not later than the 45th day after the date the District issues the final order. The case shall be decided under the substantial evidence standard of review as provided by Section 2001.174, Government Code.
 - (1) If the court finds that a Desired Future Condition is unreasonable, the court shall strike the Desired Future Condition and order the districts in GMA 7 to reconvene not later than the 60th day after the date of the court order in a joint planning meeting for the purpose of revising the applicable Desired Future Condition. The districts in the management area shall follow the procedures in Section 36.108, Water Code, to adopt new Desired Future Conditions applicable to the district that received the petition.
 - (2) A court's finding under District Rule 10.14(o) does not apply to a Desired Future Condition that is not a matter before the court.

SECTION 11.

TRANSPORTATION OF GROUNDWATER OUT OF THE DISTRICT

Rule 11.1 General Transportation Provisions

- (a) A person who produces or wishes to produce water from a well located or to be located within the District and transport such water for use outside of the District must take the following action:
 - (1) Register the well with the District;
 - (2) Obtain an Operating Permit or Grandfathered Use Permit from the District or an amendment to such a permit; and
 - (3) Submit timely payment of the Groundwater Transportation Fee to the District for any water transported out of the District. The holder of a permit authorized to transport water outside the boundaries of the District shall, on a semiannual basis and in accordance with Rule 4.3, report the total amount of groundwater transported outside of the District for reporting purposes and for purposes of calculating the Groundwater Transportation Fee.

- (b) The District may not regulate production of groundwater or assess fees against the transport of water produced in an area of a retail public utility that is located inside the District boundaries and transported for use to an area that is within the same retail public utility but that is located outside the District boundaries if the majority of the geographic area of the retail public utility's boundaries or defined service area is within the boundaries of the District and the majority of the groundwater produced is used within the boundaries of the District. If conditions change over time such that the majority of such geographic area or use is not within the boundaries of the District, the groundwater transported for use outside of the District shall be assessed the Groundwater Transportation Fee.

- (c) Applications that request authorization to transport water outside the boundaries of the District shall automatically be considered by the District after notice and hearing.

Rule 11.2 Considerations for Transportation of Groundwater

- (a) In reviewing a proposed transportation of groundwater out of the District, the District shall consider the following:
 - (1) The availability of water in the District and in the proposed receiving area during the period for which the water supply is requested;

- (2) The projected effect of the proposed transport on aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users within the District; and
 - (3) The approved regional water plan and certified District management plan.
- (b) The District may not impose more restrictive permit conditions on transporters than the District imposes on in-district users.

SECTION 12.

AUTHORITY TO DEFINE MANAGEMENT ZONES AND PRODUCTION-BASED LIMITATIONS

Rule 12.1 Management Zones

- (a) Using the best hydrogeologic and other relevant scientific data readily available, the Board by resolution may create certain management zones within the District based on geographically or hydrogeologically defined areas, aquifers, or aquifer subdivisions, in whole or in part, within which the District may:
- (1) Assess water availability;
 - (2) Authorize total production and make proportional adjustments to permitted withdrawals;
 - (3) Allow for the transfer of permits; and
 - (4) Otherwise undertake efforts to manage the groundwater resources in a manner that is consistent with the District Act, Chapter 36, Texas Water Code, and that aids in the attainment of all applicable Desired Future Conditions established for the aquifers located in whole or in part within the boundaries of the District.
- (b) In creating management zones, the Board shall attempt to establish zone boundaries that will promote fairness and efficiency by the District in its management of groundwater, while considering hydrogeologic conditions and the Desired Future Conditions established for the aquifers located in whole or in part within the boundaries of the District.
- (c) Where practicable, the Board may consider the ability of the public to readily identify the boundaries of designated zones based on features on the land surface.

Rule 12.2 Proportional Adjustment

- (a) The Board, by resolution, may establish proportional adjustment reductions to alter the amount of production allowed from an aquifer within the District if reductions are required

under these Rules, and/or if reductions are required within one or more management zones, if necessary to avoid impairment of and to achieve the applicable Desired Future Conditions established for the aquifers located in whole or in part within the boundaries of the District.

- (b) When establishing proportional adjustment restrictions, the Board shall first set aside an amount of groundwater equal to an estimate of total exempt use for each aquifer. If the proportional adjustment restrictions are to be imposed for a particular aquifer in a particular management zone, the Board shall first set aside an amount of groundwater equal to an estimate of total exempt use for each aquifer within that particular management zone.
- (c) After setting aside an amount of groundwater for exempt use for each aquifer, to the extent of remaining groundwater availability, the Board shall allocate groundwater to Grandfathered Use Permits according to the permitted or claimed Grandfathered use in each, depending upon whether the Grandfathered Use Permit applied for has yet been issued.
- (d) If there is sufficient groundwater to satisfy all Grandfathered Use Permits and exempt use for a particular aquifer within a management zone, the Board shall then allocate remaining water availability among existing Operating Permits, based on their previously permitted amounts.
- (e) If there is sufficient groundwater to satisfy exempt use and all Grandfathered Use Permits, and existing Operating Permits authorizing withdrawal from a particular aquifer, the Board may then allocate remaining groundwater availability to applications for new or amended Operating Permits.
- (f) When establishing proportional adjustment restrictions that contemplate the reduction of authorized production or a prohibition on authorization for new or increased production from one or more aquifers, the Board may also choose to proportionately reduce any existing Operating Permits on a pro rata basis in order to make groundwater available for new applications for Operating Permits.

Rule 12.3 Issuance of New Operating Permits

In a management zone where the Board has already established proportional adjustment regulations, new Operating Permits may be issued by the District for production in the management zone only if the management zone contains groundwater available for permitting after the District has made any and all proportional adjustments to existing permits in a manner that is consistent with the achievement of the Desired Future Conditions established for the aquifers located in whole or in part within the boundaries of the District.

SECTION 13.

ENFORCEMENT PROVISIONS

Rule 13.1 Purpose and Policy

The District's ability to effectively manage and preserve the limited groundwater resources within the District relies entirely upon adherence to the Rules promulgated by the Board to carry out the District's authorized duties and purposes. Those purposes include providing for the conservation, preservation, protection and recharge of the groundwater resources within the District, to protect against degradation of water quality and to prevent waste of those resources. The ability to enforce these Rules in a reasonable, uniform, and effective manner will make it possible for the District to accomplish its purposes. The inspection and enforcement Rules and procedures provided in this Section are in accordance with the responsibilities delegated to the District by the Texas Legislature through the District Act and through Chapter 36 of the Texas Water Code.

Rule 13.2 Rules Enforcement

If it appears that a person has violated, or is violating any provision of the District Rules, the Board of Directors may institute and conduct a suit in the name of the District for injunctive relief, recovery of a civil penalty of not more than \$10,000 per violation, or both injunctive relief and a civil penalty. Each day that a violation continues shall be considered a separate violation.

Rule 13.3 Civil Penalty Schedule

The civil penalty for a violation of any District Rule is hereby set at the lower of: (1) \$10,000.00 per violation; or (2) a lesser amount based on the severity of the violation set forth in a civil penalty schedule which the Board of Directors may adopt from time to time via resolution in a properly noticed meeting, which civil penalty schedule is incorporated by reference into these Rules and shall constitute a Rule of the District for all purposes. Each day that a violation continues shall be considered a separate violation.

Rule 13.4 District Inspections

No person or entity shall unreasonably interfere with the District's efforts to conduct inspections or otherwise comply with the requirements, obligations, and statutory authority provided in Section 36.123 of the Texas Water Code.

Rule 13.5 Notice of Violation

- (a) Upon determination by the District that a person has violated or is violation of any provision of the District's Rules, including the terms of any Rule or order issued by the District, it may employ any of the following means, or a combination thereof, in providing notice of the violation:
 - (1) **Informal Notice:** The officers, staff or agents of the District acting on behalf of the District or the Board may inform the person of the violation via telephone by informing, or attempting to inform, the appropriate person to explain the violation and the steps necessary to cure the violation. The information received by the

District through this informal notice concerning the violation and the date and time of the telephone call will be documented and will remain in the District's files. Nothing in this subsection shall limit the authority of the District to take action, including emergency actions or any other appropriate enforcement action, without prior notice provided under this subsection.

- (2) **Written Notice of Violation:** The District may inform the person of the violation through written notice of violation. Each notice of violation issued herein shall explain the basis of the violation, identify the Rule or order that has been violated or is currently being violated, and list specific required actions that must be satisfactorily completed to cure a past or present violation to address each violation raised, and may include the payment of applicable civil penalties. Notice of a violation issued herein shall be provided through a delivery method in compliance with these Rules. Nothing in this subsection shall limit the authority of the District to take action, including emergency actions or any other appropriate enforcement action, without prior notice provided under this subsection.
- (3) **Compliance Meeting:** The District may hold a meeting with any person whom the District believes to have violated, or to be violating, a District Rule or District order to discuss each such violation and the steps necessary to satisfactorily remedy each such violation. The General Manager or District staff may conduct a compliance meeting without the Board, unless otherwise determined by the Board or General Manager. The information received in any meeting conducted pursuant to this Rule subsection concerning the violation will be documented, along with the date and time of the meeting, and will be kept on file with the District. Nothing in this subsection shall limit the authority of the District to take action, including emergency actions or any other appropriate enforcement action, without prior notice provided under this subsection.

Rule 13.6 Show Cause Hearing

- (a) Upon recommendation of the General Manger or District staff to the Board or upon the Board's own motion, the Board may order any person that it believes has violated or is violating any provision of the District's Rules a District order to appear before the Board at a public meeting, held in accordance with the Texas Open Meetings Act, and called for such purpose and to show cause of the reasons an enforcement action, including the initiation of a suit in a court of competent jurisdiction, should not be pursued against the person(s) made the subject of the show cause hearing.
- (b) No show cause hearing under Subsection (a) of this Rule may be conducted unless the District serves, on each person made the subject of the show cause hearing, a written notice thirty (30) days prior to the date of the hearing. Such notice shall include all of the following information:
 - (1) The time, date, and place for the hearing; and

- (2) The basis of each asserted violation; and
 - (3) The Rule or order that the District believes has been violated or is currently being violated; and
 - (4) A request that the person duly appear and show cause of the reasons an enforcement action should not be pursued.
- (c) The District may pursue immediate enforcement action against the person cited to appear in any show cause order issued by the District where the person cited fails to appear and show cause of the reasons an enforcement action should not be pursued.
- (d) Nothing in this Rule shall constrain the authority of the District to take action, including emergency actions or any other enforcement action, against a person at any time, regardless of whether the District decides to hold a hearing under this Section.

SECTION 14.

FEES AND PAYMENT OF FEES

Rule 14.1 Groundwater Transport Fee

- (a) The District shall impose a groundwater transportation fee, as determined by resolution of the Board, for the groundwater produced within the District's boundaries that is transported for use outside of the District, unless exempt under Rule 11.1(b), using one of the following methods:
- (1) a fee negotiated between the District and the transporter; or
 - (2) a rate not to exceed 20 cents for each thousand gallons of water transported out of the District.
- (b) Effective January 1, 2024, the maximum allowable rate the District may impose for a transport fee under Rule 14.1 shall increase each calendar year in accordance with Section 36.122(e-1), Texas Water Code. An increase in the transport fee is not valid unless it is approved by the Board after a public hearing.

- (c) The District may only use funds obtained from the rate increase under Rule 14.1(b) for costs related to assessing and addressing impacts associated with groundwater development as provided by Texas Water Code Section 36.207, including:
 - a) maintaining operability of wells significantly affected by groundwater development;
 - b) developing or distributing alternative water supplies; and
 - c) conducting aquifer monitoring, data collection, and aquifer science.

Rule 14.2 Failure to Make Fee Payments

- (a) Fee payments determined to be greater than thirty (30) days late from the date due and owed to the District will be subject to a late payment fee as determined by the Board and provided in the District's civil penalty fee schedule described in Rule 13.3.
- (b) Fee payments determined to be greater than sixty (60) days late of the date from the date due and owed to the District shall be subject to a civil penalty as determined by the Board and provided in the District's civil penalty fee schedule described in Rule 13.3, in addition to any late fee penalty provided for in Subsection (a) of this Rule, and may be subject to additional enforcement measures provided for by these Rules or by order of the District Board.

Rule 14.3 Enforcement

After a well is determined to be in violation of these Rules for failure to make payment of water use fees or groundwater transport fees on or before the sixtieth (60th) day following the date such fees are due, all enforcement mechanisms provided by law and these Rules shall be available to prevent unauthorized use of the well and may be initiated by the Board or General Manager.

Rule 14.4 Returned Check Fee

The Board may establish a fee for checks returned to the District for insufficient funds, account closed, signature missing, or any other reason causing a check to be returned by the District's depository and shall include such a fee in the District's schedule of fees for administrative acts of the District, as provided in Rule 14.5.

Rule 14.5 Administrative Fees

The Board, by resolution, may establish a schedule of fees for administrative acts of the District, including but not limited to the cost of reviewing and processing applications, renewal applications, and the cost of permit hearings, and such administrative fees shall not unreasonably exceed the cost to the District for performing such administrative acts. If adopted by the Board, the schedule of fees shall be incorporated as a Rule of the District. Applications shall not be

accepted for filing or processing or hearings scheduled until receipt by the District of all applicable fees established by Board resolution.