Clear Fork Groundwater Conservation District
USDA Service Center
105 N Lyon St., Suite C • Roby, TX 79543
Phone: (325) 776-2730 Mobile: (325) 721-8936
General Manager, Belynda Rains

December 15, 2021

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

Dear Mr. Jeff Walker,

The Clear Fork Groundwater Conservation District is presenting the following Management Plan for approval by the TWDB. The Management Plan was adopted by the board of directors in a public meeting on November 29, 2021 with a vote of 5 for and 0 against. There were no public comments prior to the meeting, nor any public attendees. The board approved a resolution of the adoption and is included in following documents.

At this time we ask for consideration of approving the following Management Plan.

Sincerely,

Belynda Rains

Belynda Rains, general manager

Attachments: Resolution No. 2021-002
Posted Agenda
Affidavit of Publication for Notice of Public Hearing
Adopted Management Plan with supporting data
Rules of Clear Fork GCD Adopted November 30, 2017

RESOLUTION NO. 2021-002

OF CLEAR FORK GROUNDWATER CONSERVATION DISTRICT ADOPTING THEREVISED DISTRICT MANAGEMENT PLAN

WHEREAS, In accordance with Texas Water Code § 36..1071 (including coordination with surface water management entities on a regional basis). 36.1072, and 36.1085, a district shall develop and submit to the executive administrator a management plan that meets the requirements of § 356.52 of the subchapter relating to required content of the Management Plan:

WHEREAS, the District has prepared a revised Management Plan;

WHEREAS, the District has also fulfilled the requirements of TEXAS WATER CODE § 36.108 for mutual cooperation and joint planning;

WHEREAS, the GMA-6 District Directors have met and held public meetings for the specific purpose of receiving comments and input from stakeholders within the District;

WHEREAS, the District Aquifers have substantially different uses, characteristics and conditions across its boundaries within the Districts and have considered these differences;

WHEREAS, the District has considered groundwater availability models and other relevant and available scientific and hydrological data;

WHEREAS, this Plan adopted by the District this date is subject to future revision;

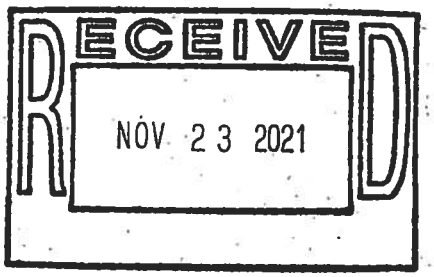
NOW, THEREFORE, BE IT RESOLVED BY THE DIRECTORS OF THE CLEAR FORK GROUNDWATER CONSERVATION DISTRICT THAT THE DISTRICT ADOPTS THE DISTRICT MANAGEMENT PLAN :

PASSED AND APPROVED BY A VOTE OF 5 TO 0 OF THE DIRECTORS OF CLEAR FORK GROUNDWATER CONSERVATION DISTRICT THIS _29th_ DAY OF NOVEMBER 2021.

NOTICE OF MANAGEMENT PLAN HEARING AND BOARD MEETING OF THE CLEAR FORK GROUNDWATER CONSERVATION DISTRICT

Monday November 29, 2021 7:00 AM at the

Longworth Coop Gin Office, 306 E South 1st, Roby, Texas 79543



MANAGEMENT PLAN PUBLIC HEARING

Call to Order -

Roll Call

Discussion and Public Comment on Clear Fork GCD Management Plan

Adjourn

REGULAR BOARD MEETING AGENDA

Call to order -

Review and approve minutes of the last Board meeting September 14, 2021

Managers Annual Report -

RMBJ Geo. Report-

GMA 6 Update -

Business Items as Listed for Discussion / Action

a) Management Plan - Adopt - Resolution

b) New Precinct Lines -

c) Review and Approve Tax Property Sales since last meeting –

d) Cloud Seeding 2021 Final Report -

e) Executive Session -

f) Review/Action current bills and Financial Report

g) Other Items of Business for next board meeting

h) Set next Meeting

i) Adjournment

1. Members of the public may address the Board for a limited time concerning any subject whether or not it is on the agenda. The Board is not allowed to take action on any subject presented that is not on the agenda, nor is the Board required to provide a response. 2.During the meeting, the GCD Board may go into executive session for any of the purposes authorized under the Texas Open Meetings Act, Chapter 551 of the Texas Government Code, for any item on the above agenda or as otherwise authorized by law. 3. The District is committed to comply with the Americans with Disabilities Act. Responsible accommodations and equal opportunity for effective communications will be provided upon request. Please contact the District's General Manager at 325-776-2730 or 325-721-8936 at least 48 hours in advance of the meeting if accommodation is needed.

I certify that this notice was posted before 72 hours in accordance with the Texas Open Meeting Act;

Dated: 11/23/2021 Time: 1:54 A.M.

Belynda Rains

Belynda Rains, District Manager

AFFIDAVIT OF PUBLICATION

STATE OF TEXAS

COUNTY OF FISHER

Before me, the undersigned authority, on this day personally appeared Patricia L. Hurt (Name), the Publisher (Title) of the

__**Double Mountain Chronicle**, a newspaper having general circulation in Fisher County, Texas, who being by me duly sworn, deposes and says that the foregoing attached notice was published in said newspaper on the following date, to wit: 11/5/2021

Patricia L. Hurt
Signature

Subscribed and sworn to before me this the 30th day of Nov., 2021

Patricia Janet Porter
otary Public in and for
sher County, Texas

Patricia Janet Porter
NOTARY PUBLIC, STATE OF TEXAS
COM. EXPIRES 09/01/2024
NOTARY ID #399106-9

Notice of Public Hearing of the Clear Fork Groundwater Conservation District for the Purpose of Adopting a Revised Management Plan

The Clear Fork Groundwater Conservation District will conduct a public hearing concerning the District's intent to adopt a revised Management Plan at 7:00 A.M. on Monday November 9, 2021 at Longworth Coop Gin, 306 E South 1 st Roby, TX in the Main Office.

The public hearing for is to provide interested members of the public the opportunity to appear and provide oral or written comments on the proposed revisions to the Management Plan.

Public comment period pertaining to the Management Plan will begin at 7:00 a.m. with board meeting to follow the public hearing for action on adoption of the plan.

The Management plan is required to be updated every five (5) years by the Texas Water Development Board. The Management Plan is goals for the District that includes the most efficient use of groundwater, controlling and preventing waste of groundwater; controlling and preventing subsidence; addressing conjunctive surface water management issues; addressing natural resource issues; addressing drought conditions and addressing conservation.

For a complete copy of the proposed Management Plan for review you may request by sending an email to clearforkgcd@gmail.com; call General Manager Belynda Rains at 325-721-8936 or request in writing by mail to Clear Fork GCD 105 N Lyon, Ste C, Roby, TX 79543. All comments must be received by the GCD no later than 5:00 p.m. on November 26, 2021.

Due to Covid-19 regulations the guidelines are less than 10 attendees to meet within the meeting area at a time.

Clear Fork Groundwater Conservation District
Management Plan
Adopted 11/29/2021

DISTRICT MISSION

The Clear Fork Groundwater Conservation District is committed to establish and protect the water rights of local landowners, and preserve this resource for generations to come.

TIME PERIOD FOR THIS PLAN

This plan becomes effective upon the adoption by the Board of Directors of the Clear Fork Groundwater Conservation District and approval by the Texas Water Development Board (TWDB). This is a five-year plan and will remain in effect for five years, or until a revised plan is approved, whichever is earlier.

STATEMENT OF GUIDING PRINCIPLES

The citizens of Fisher County recognize the vital importance of the groundwater to the economy and longevity of the county. Being the primary custodian of the groundwater resource; the district recognizes the need to conserve and protect the quantity and the quality of groundwater through prudent and cost-effective management. The goals of this plan can be best achieved through guidance from locally elected board members who have an understanding of local conditions as well as technical support from knowledgeable agencies. Management planning should be based upon an awareness of the hydrogeologic properties of the specific aquifers within the District as well as quantification of existing and future resource data. This management plan is intended only as a reference tool to provide guidance in the execution of district activities, but should allow flexibility in achieving its goals.

GENERAL DESCRIPTION

The District was created by the citizens of Fisher County through election in November, 2002. Directors are elected with Fisher County Commissioner's precincts, with a director from within each of the four precincts. Additionally, one director is elected as an at-large position from the entire county. The Clear Fork Groundwater Conservation District has the same areal extent as that of Fisher County, Texas. The county has a diverse economy, with agriculture and industry all represented. Livestock operations include cattle, goats, and hogs. Crops include cotton, sorghum, wheat, hay, pecans, and some fruits and vegetables. One of the major industries is National Gypsum, which began operations in Fisher County in 1935. Oil and gas production have been a part of Fisher County for several decades. Communities in the county include Roby, Busby, Claytonville, Eskota, Hobbs, Longworth, McCaulley, Palava, Rotan, Royston, and Sylvester. The main tourist attraction is the diverse hunting opportunities in Fisher County.

LOCATION AND EXTENT

The Clear Fork Groundwater Conservation District shares a boundary with Fisher County. Fisher County is on U.S. Highway 180 west of Abilene in the Rolling Plains region of central West Texas. The county is bordered on the north by Kent and Stonewall counties, on the east by Jones County, on the south by Nolan County, and on the west by Scurry County. Its center point is 32°45' north latitude and 100°23' west longitude. Roby is the county seat; Rotan, the county's largest town, is 225 miles west of Dallas, 65 miles northwest of Abilene and 125 miles southeast of Lubbock. In addition to U.S. 180 the county's transportation needs are served by State highways 70 and 92.

Soils range from red-to-brown, with loamy surface layers and clayey or loamy subsoils. Between 51 and 60 percent of the land in the county is considered prime farmland. The vegetation, typical of the Rolling Prairies, features medium-height to tall grasses, mesquite, and cacti. Cedar, cottonwood, and pecan trees also grow along streams. Many species of wildflowers bloom in the spring and early summer, including daisies, buttercups, tallow weed, Indian blanket, baby's breath, prairie lace, wild verbena, belladonna, and hollyhock. Texas bluebells thrive in low places.

The climate is subtropical and sub-humid, with cool winters and hot summers. Temperatures range in January from an average low of 28° F to an average high of 56°, and in July from 70° to 96°. The average annual rainfall measures twenty-two inches, and the average relative humidity is 73 percent at 6 A.M. and 40 percent at 6 P.M. The average annual snowfall is five inches.

The growing season averages 222 days, with the last freeze in early April and the first freeze in early November. The agricultural economy centers around cattle, livestock products and hunting, but 60 percent of the annual agricultural income is from crops, especially cotton, wheat, sorghum, and hay. Petroleum, natural gas, gypsum, rock, and sand and gravel are also produced in the county. *

*Taken from "FISHER COUNTY." Handbook of Texas Online by Hooper Shelton
This reference is now at: https://www.tshaonline.org/handbook/entries/fisher-county

TOPOGRAPHY AND DRAINAGE

Fisher County covers 897 square miles of grassy, rolling prairies. The elevation ranges from 1,800 to 2,400 feet. The northern third of the county is drained by the Double Mountain Fork of the Brazos River, and the southern two-thirds is drained by the Clear Fork of the Brazos. *(Source: USDA Natural Resources Conservation Service, Abilene Field Office)*

*Taken from "FISHER COUNTY." Handbook of Texas Online by Hooper Shelton
This reference is now at: https://www.tshaonline.org/handbook/entries/fisher-county

SURFACE WATER RESOURCES OF CLEAR FORK G.C.D.

There is no reliable surface water within the district, with the exception of a few livestock tanks. Based on reported existing surface water rights holders within Fisher County, a total of 915 acre feet of water is permitted by the TCEQ mainly for irrigation use by landowners within the county.

GROUNDWATER RESOURCES

THE BLAINE AQUIFER

The Blaine Aquifer consists of water stored in cavities of gypsum and limestone rock. This aquifer is typically encountered from surface exposure to depths of 100 feet below the ground surface and has a saturated thickness less than 200 feet. Recharge occurs via open cavities and infiltration. The Blaine Aquifer water is high in total dissolved solids, typically about 3,000 mg/l, due to sulfates and chlorides. This salinity is too high for public water supply use without expensive treatment. However, it can and has been used to irrigate cotton. The high solids results from the natural dissolving of the gypsum and associated rock of the aquifer, therefore there are no feasible methods to reduce the dissolved solids levels.

DOCKUM GROUP AQUIFERS

The Dockum Aquifer is present in the southwest corner of the county.. The sediments are primarily sandstones, conglomerates and sandy shales. The formation also contains beds of gypsum, anhydrite, halite, and dolomite. In Fisher County the yields of wells range from less than 30 gal/min to as much as 200 gal/min, depending on saturated thickness, and average about 35 gal/min. Water quality is good to fair. The water is usually slightly saline with higher salinity in some locations. Irrigation wells completed in the Dockum Aquifer has had yields as high as 700 GPM in the past. Current yields are generally lower.

SEYMOUR AQUIFER

The Seymour Aquifer is the only significant source of groundwater in Fisher County. The Aquifer is present in the north one-third of Fisher County, stretching from east to west. The Seymour Aquifer contains discontinuous beds of poorly sorted gravel, conglomerate, sand, and silty clay deposited during the Quaternary Period by eastward-flowing streams. Individual accumulations vary greatly in thickness, although most of the Seymour is less than 100 feet thick. Materials forming the Seymour Aquifer are unconsolidated alluvial sediments of non-marine origin deposited on the erosional surface of Permian beds. In Fisher County the well yields range from less than 30 gal/min to as much as 200 gal/min, depending on saturated thickness, and average about 35 gal/min. The water quality is generally good.

MODELED AVAILABLE GROUNDWATER - Tables 1, 2 and 4, GAM Run 16-031 MAG: Modeled Available Groundwater for the Seymour, Blaine, Ogallala, and Dockum Aquifers in GMA 6.

Table 1: The MAG for the Seymour Aquifer in Clear Fork GCD during the six decades from 2020 thru 2070 range from 6,718 to 6,131 ac-ft/yr.

Table 2: The MAG for the Blaine Aquifer in Clear Fork GCD during the six decades from 2020 thru 2070 range from 12,855 to 12,820 ac-ft/yr.

Table 4: The MAG for the Dockum Aquifer in Clear Fork GCD during the six decades from 2020 thru 2070 is 79 ac-ft/yr.

There is no MAG for the Ogallala Aquifer in the Clear Fork GCD.

The GAM Run 16-031 MAG report is attached as an appendix.

AMOUNT OF GROUNDWATER BEING USED – Fisher County, Estimated Historical Water Use and 2017 State Water Plan datasets report, TWDB, July 9, 2021.

The amount of groundwater used on an annual basis for the last five years are as follows:

Year	Amount in ac-ft/yr
2018	5,368
2017	4,194
2016	3,637
2015	4,141
2014	5,282

The TWDB groundwater management plan data report is attached as an appendix showing the complete historical record of groundwater use.

RECHARGE FROM PRECIPITATION – Tables 1, 2 and 3, GAM Run 19-024, September 6, 2019, Clear Fork Groundwater Conservation District Management Plan, TWDB attached as an appendix. Total estimated annual recharge from precipitation in the District is 25,303 acre-feet per year. Recharge by aquifer is: Blaine, 12,307 ac-ft/yr; Dockum 735 ac-ft/yr; and Seymour 12,261 ac-ft/yr.

DISCHARGE FROM THE AQUIFERS TO SPRINGS, LAKES & STREAMS – Tables 1, 2 and 3, GAM Run 19-024, September 6, 2019, Clear Fork Groundwater Conservation District Management Plan, TWDB attached as an appendix. Discharge is 762 ac-ft/yr for the Dockum Aquifer, 3,011 ac-ft/yr for the Seymour Aquifer, and 3,299 ac-ft/yr for the Blaine Aquifer.

FLOW INTO THE DISTRICT AQUIFERS – Tables 1, 2 and 3, GAM Run 19-024, September 6, 2019, Clear Fork Groundwater Conservation District Management Plan, TWDB attached as an appendix. Annual volume of flow into the District is 145 ac-ft/yr for the Dockum Aquifer, 0 ac-ft/yr for the Seymour Aquifer, and 592 ac-ft/yr for the Blaine aquifer.

FLOW OUT OF THE DISTRICT AQUIFERS – Tables 1, 2 and 3, GAM Run 19-024, September 6, 2019, Clear Fork Groundwater Conservation District Management Plan, TWDB attached as an appendix. Annual volume of flow out of the district is 9 ac-ft/yr for the Dockum Aquifer, 459 ac-ft/yr for the Seymour Aquifer, and 3,349 ac-ft/yr for the Blaine Aquifer.

FLOW BETWEEN DISTRICT AQUIFERS – Tables 1, 2 and 3, GAM Run 19-024, September 6, 2019, Clear Fork Groundwater Conservation District Management Plan, TWDB attached as an appendix. Flow into the Dockum from overlying units of 115 ac-ft/yr which is of interest to the District, since the Dockum is on the surface in Fisher County. Flow into the Seymour from underlying Permian units is 436 ac-ft/yr. Flow into the Blaine from other Permian units 3,202 ac-ft/yr. Flow from the Blaine Aquifer to the overlying Seymour Aquifer is 1,266 ac-ft/yr.

PROJECTED SURFACE WATER SUPPLIES – Fisher County, Estimated Historical Water Use and 2017 State Water Plan datasets report, TWDB, July 9, 2021, attached as an appendix. Projected surface water supplies are 709 ac-ft/yr in 2020, 726 ac-ft/yr in 2030, 717 ac-ft/yr in 2040, 711 ac-ft/yr in 2050, 705 ac-ft/yr in 2060 and 700 ac-ft/yr 2070.

PROJECTED TOTAL WATER DEMAND – Fisher County Estimated Historical Water Use and 2017 State Water Plan datasets report, TWDB, July 9, 2021, attached as an appendix. Projected Total Water Demand was reported to be 6,280 ac-ft/yr in 2020, 6,151 ac-ft/yr in 2030, 5,992 ac-ft/yr in 2040, 5,844 ac-ft/yr in 2050, 5,703 ac-ft/yr in 2060, and 5,584 ac-ft/yr in 2070.

PROJECTED WATER SUPPLY NEEDS – Fisher County, Estimated Historical Water Use and 2017 State Water Plan datasets report, TWDB, July 9, 2021, attached as an appendix contains the full water supply needs dataset. Needs are identified in manufacturing, mining, and City of Rotan municipal use beginning in 2020. Needs in 2020 are 516 acre-feet, decreasing to 481 acre-feet by 2070.

WATER MANAGEMENT STRATEGIES – Fisher County, Estimated Historical Water Use and 2017 State Water Plan datasets report, TWDB, July 9, 2021, attached as an appendix contains all water management strategies considered for this District.

Strategies to address the water needs in Fisher County are Dockum Aquifer Development and Industrial Water Conservation in the manufacturing category, Dockum Aquifer Development and Demand Reduction in the Mining category, and Subordination into the

CRMWD water system for the City of Rotan. The District believes that these strategies and a continuing focus on conservation will sufficiently address the projected needs. In addition, the District has recently participated in a weather modification project along with adjoining counties in order to make the best use of all potential rainfall.

MANAGEMENT OF GROUNDWATER SUPPLIES

Brush Management: The eradication of mesquite and salt cedar from areas of moderate to heavy brush canopy would yield additional groundwater supplies.

Potential Demand and Supply

The District will encourage water conservation and the development of additional water supplies through groundwater conservation education programs at the school and community levels.

The District will manage the supply of groundwater within the District in order to conserve the resource while seeking to maintain the economic viability of all resource user groups, public and private. In consideration of the economic and cultural activities occurring within the District, the District will continue to identify and engage in such activities and practices, that if implemented, would result in the conservation and protection of the groundwater. The observation and monitoring network will continue to be reviewed and maintained in order to monitor changing conditions of groundwater within the District. The District will undertake investigations of the groundwater resources within the District and will make the results of those investigations available to the public.

The District has adopted rules to regulate the groundwater withdrawals by means of spacing limits and permitting. The relevant factors to be considered in making the determination to grant a permit will include:

1. The purpose of the District and its rules;
2. The equitable conservation and preservation of the resource, and;
3. The economic hardship resulting from granting or denying a permit or the terms prescribed by the rules.

In pursuit of the District mission of conserving and protecting the resource, the District will enforce the terms and conditions of permits and rules of the District by enjoining the permit holder in a court of competent jurisdiction, as provided for in TWC §36.102, if necessary. **The rules are attached as an appendix.**

ACTIONS, PROCEDURES, PERFORMANCES AND AVOIDANCE FOR PLAN IMPLEMENTATION

The District will implement the provisions of the plan and will utilize the provisions of the plan as a guidepost for determining the direction or priority for all District Activities. All operations of the District, all agreements entered into by the District, and any additional planning efforts in which the District may participate will be consistent with the provisions of the plan.

The District has adopted rules relating to the implementation of this plan. The rules adopted by the District are pursuant to TWC §36 and the provisions of this plan. All rules will be adhered and enforced. The promulgation and enforcement of the rules will be based upon the best technical evidence available. The rules are attached as an appendix.

The District shall treat all citizens with equality. Citizens may apply to the District for discretion in enforcement of the rules on grounds of adverse economic effect or unique local characteristics. In granting discretion to any rule, the Board shall consider the potential for adverse effect on adjacent landowners and aquifer conditions. The exercise of said discretions by the Board shall not be construed as limiting the power of the board.

METHODOLOGY

The methodology that the District will use to trace its progress on an annual basis in achieving its management goals will be as follows:

The District Manager will prepare and present an annual report to the Board of Directors on the District performance in regards to achieving management goals and objectives during the first monthly Board of Directors meeting each fiscal year. This report will include the number of instances each activity was engaged in during the year.

The annual report will be maintained on file at the District office.

GOALS, MANAGEMENT OBJECTIVES AND PERFORMANCE STANDARDS

GOAL 1.0 – Providing for the most efficient use of groundwater

1.1 Management Objective - Each year, on four (4) or more occasions, the District will disseminate educational information relating to conservation practices for the efficient use of water resources. These will include but are not limited to publications from the Texas Water Development Board, the Texas Commission on Environmental Quality,

Texas Cooperative Extension Service, the Texas Water Resource Institute, and other resources.

1.1a Performance Standard - Number of occasions, annually, the District disseminated educational information related to conservation practices for the efficient use of groundwater.

1.1b Performance Standard – Number of educational literature packets that have been distributed will be reported to the board in the annual report.

1.2 Management Objective - The District will adopt and enforce rules regarding the spacing of all new wells drilled within the District to limit the areas of overlapping cones of depression.

1.2a Performance Standard - The number of wells drilled each year in compliance with the spacing rules will be reported to the Board annually.

1.3 Management Objective - The District will implant a district-wide voluntary monitoring network to evaluate groundwater availability. Wells will be monitored for static level at least annually.

1.3a Performance Standard – The number of wells involved in the project, and respective static levels, will be reported to the Board of Directors annually. Well will be placed on a well numbering grid map for reference.

GOAL 2.0 – Controlling and preventing waste of groundwater

2.1 Management Objective – Report to the Board on a quarterly basis all reported wasteful practices and non-beneficial use of groundwater in the district. Investigate and determine how to handle each reported waste within five (5) working days.

2.1a Performance Standard – Quarterly reports of wasteful practices will be summarized in the annual report to the Board of Directors. Summaries shall include all relevant dates, information, and any remedial action taken by the District (if applicable).

GOAL 3.0 – Addressing Drought Conditions

3.1 Management Objective – The District will monitor the U.S. Drought Monitor. If it indicates that the District will experience severe drought conditions, the District will notify all public water suppliers within the District. The TWDB Water Data For Texas web site also presents a considerable amount of information related to drought: https://www.waterdatafortexas.org/drought

3.1a Performance Standard – The District staff will monitor the USDM and report findings and actions to the District Board on a quarterly basis.

GOAL 4.0 – Addressing Conservation

4.1 Management Objective - The district will submit an article regarding water conservation for publication each year to at least one newspaper of general circulation in Fisher County.

4.1a Performance Standard – A copy of the article submitted by the District for publication will be included in the annual report given to the Board of Directors.

GOAL 5.0 – Addressing Recharge Enhancement

5.1 Management Objective - The district will encourage brush removal as a means of recharge enhancement by publishing an article each year and attending at least one Soil & Water Conservation district meeting each year.

5.1a Performance Standard – A copy of the article submitted by the District for publication will be included in the annual report given to the Board of Directors.

GOAL 6.0 – Addressing Rainwater harvesting

6.1 Management Objective - The district will prepare a report investigating the possibility of a cooperative agreement with the Roby School District to construct a rainwater harvesting demonstration.

6.1a Performance Standard – The report will be submitted to the Board of Directors by 30 June 2025.

More rainwater harvesting information can be found at
http://www.twdb.texas.gov/innovativewater/rainwater/index.asp

GOAL 7.0 – Addressing Precipitation Enhancement

7.1 Management Objective - The district will participate in an area precipitation enhancement program provided funds are available.

7.1a Performance Standard – The Board of Directors will review the evaluation reports prepared by the precipitation enhancement program and summary results pertaining to Fisher County included in the annual report.

GOAL 8.0 – Addressing Brush control

8.1 Management Objective - The District will encourage brush control and Best Management Practices related to brush control where appropriate.

8.1a Performance Standard – The District will have an agenda item in at least one open meeting to discuss brush control. A District official will meet annually with the Soil and Water Conservation District/Natural Resources Conservation Service Agencies to discuss and support the need for brush control in the Districts, The reports and information will be included in the District annual report.

GOAL 9.0 – Monitoring Desired Future Conditions

9.1 Management Objective - The district will annually measure the water levels of at least two (2) monitoring wells within each aquifer within the District and will compare the status of the measurements to the desired future condition.

9.1a Performance Standard – The status or the water levels measured and the tracking will be included in the Annual Report.

GOAL 10.0 – Addressing natural resource issues which impact the use and availability of groundwater, and which are impacted by the use of groundwater.

10.1 Management Objective – The District will investigate or refer to the proper agency any complaint related to surface water, groundwater, or any natural resource within the District.

10.1 Performance Standard – The District will record all complaints and report these annually to the District Board of Directors.

10.2 Management Objective -The District will track the number of wells being permitted and drilled to support oil and gas drilling and production operations.

10.2 Performance Standard - The District will track the number of wells being permitting and drilled to support oil and gas drilling and production operations and will report that number in the annual report to the Board.

MANAGEMENT GOALS DETERMINED NOT-APPLICABLE

GOAL – Control and prevention of subsidence

The District evaluated subsidence risk by examining the aquifer subsidence risk vulnerability maps shown in Figures 4.43 (Seymour Aquifer), 4.54 (Blaine Aquifer), and

of the Seymour where there was a thin section of Seymour overlying the Blain Aquifer. The Blaine Formation area has existing areas of sinkhole development. These sinkholes have developed where soluble gypsum and high water tables occur. General subsidence is not observed in the district. Local sinkholes caused by groundwater dissolving the gypsum commonly found in the Blaine Formation do occur occasionally. However there are no available measures to prevent groundwater from dissolving gypsum, short of totally dewatering the Blaine Aquifer. The District will be alert to any evidence or reports of subsidence in the future and will investigate them.

This goal is not applicable to the operations of the District.

GOAL – Conjunctive surface water management issues.

The surface water management entities within the District currently supply very little water to any user in the District. The high pan evaporation rates in the area result in few reliable stream flows. There are no surface water impoundments within the District except for livestock consumption.

This goal is not applicable to the operations of the District except as it is already addressed in the education and conservation efforts in Goal 1.

Adopted this 29th Day of November 2021, at Roby, Texas.

Don A. Lambert

Tommy Bibb

Greg Pruitt

Hunter Stuart

Joe Posey

Estimated Historical Water Use And 2017 State Water Plan Datasets:

Clear Fork Groundwater Conservation District

by Stephen Allen
Texas Water Development Board
Groundwater Division
Groundwater Technical Assistance Section
stephen.allen@twdb.texas.gov
(512) 463-7317
July 9, 2021

GROUNDWATER MANAGEMENT PLAN DATA:

This package of water data reports (part 1 of a 2-part package of information) is being provided to groundwater conservation districts to help them meet the requirements for approval of their five-year groundwater management plan. Each report in the package addresses a specific numbered requirement in the Texas Water Development Board's groundwater management plan checklist. The checklist can be viewed and downloaded from this web address:

http://www.twdb.texas.gov/groundwater/docs/GCD/GMPChecklist0113.pdf

The five reports included in this part are:

1. Estimated Historical Water Use (checklist item 2)

   from the TWDB Historical Water Use Survey (WUS)
2. Projected Surface Water Supplies (checklist item 6)
3. Projected Water Demands (checklist item 7)
4. Projected Water Supply Needs (checklist item 8)
5. Projected Water Management Strategies (checklist item 9)

   from the 2017 Texas State Water Plan (SWP)

Part 2 of the 2-part package is the groundwater availability model (GAM) report for the District (checklist items 3 through 5). The District should have received, or will receive, this report from the Groundwater Availability Modeling Section. Questions about the GAM can be directed to Dr. Shirley Wade, shirley.wade@twdb.texas.gov, (512) 936-0883.

DISCLAIMER:

The data presented in this report represents the most up-to-date WUS and 2017 SWP data available as of 7/9/2021. Although it does not happen frequently, either of these datasets are subject to change pending the availability of more accurate WUS data or an amendment to the 2017 SWP. District personnel must review these datasets and correct any discrepancies in order to ensure approval of their groundwater management plan.

The WUS dataset can be verified at this web address:

http://www.twdb.texas.gov/waterplanning/waterusesurvey/estimates/

The 2017 SWP dataset can be verified by contacting Sabrina Anderson (sabrina.anderson@twdb.texas.gov or 512-936-0886).

For additional questions regarding this data, please contact Stephen Allen (stephen.allen@twdb.texas.gov or 512-463-7317).

Estimated Historical Water Use

TWDB Historical Water Use Survey (WUS) Data

Groundwater and surface water historical use estimates are currently unavailable for calendar year 2019. TWDB staff anticipates the calculation and posting of these estimates at a later date.

FISHER COUNTY

All values are in acre-feet

Year	Source	Municipal	Manufacturing	Mining	Steam Electric	Irrigation	Livestock	Total
2018	GW	354	148	0	0	4,722	144	5,368
	SW	289	1	0	0	0	215	505
2017	GW	348	166	0	0	3,543	137	4,194
	SW	247	0	0	0	0	205	452
2016	GW	366	157	0	0	2,965	149	3,637
	SW	279	0	0	0	0	224	503
2015	GW	378	132	0	0	3,486	145	4,141
	SW	262	1	0	0	85	218	566
2014	GW	405	153	1	0	4,552	171	5,282
	SW	293	1	0	0	0	256	550
2013	GW	330	156	42	0	3,704	144	4,376
	SW	372	1	0	0	0	215	588
2012	GW	631	147	1	0	5,290	228	6,297
	SW	327	2	0	0	0	342	671
2011	GW	577	126	0	0	5,462	361	6,526
	SW	297	2	0	0	0	542	841
2010	GW	546	104	88	0	4,393	337	5,468
	SW	235	1	21	0	0	506	763
2009	GW	318	131	114	0	5,348	264	6,175
	SW	326	1	27	0	0	396	750
2008	GW	400	162	139	0	5,274	284	6,259
	SW	328	1	34	0	0	425	788
2007	GW	686	146	0	0	4,057	222	5,111
	SW	365	2	0	0	0	332	699
2006	GW	332	152	0	0	4,990	257	5,731
	SW	129	8	0	0	0	386	523
2005	GW	410	159	0	0	3,470	242	4,281
	SW	136	1	0	0	0	363	500
2004	GW	605	159	0	0	2,844	57	3,665
	SW	528	4	0	0	0	511	1,043
2003	GW	602	159	0	0	2,664	56	3,481
	SW	528	1	0	0	0	501	1,030

Projected Surface Water Supplies
TWDB 2017 State Water Plan Data

FISHER COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	Source Name	2020	2030	2040	2050	2060	2070
G	IRRIGATION, FISHER	BRAZOS	BRAZOS RUN-OF-RIVER	17	17	17	17	17	17
G	LIVESTOCK, FISHER	BRAZOS	BRAZOS LIVESTOCK LOCAL SUPPLY	634	634	634	634	634	634
G	MANUFACTURING, FISHER	BRAZOS	HUBBARD CREEK LAKE/RESERVOIR	2	2	2	2	2	2
G	MINING, FISHER	BRAZOS	BRAZOS RUN-OF-RIVER	0	0	0	0	0	0
G	ROTAN	BRAZOS	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM	56	73	64	58	52	47
	Sum of Projected Surface Water Supplies (acre-feet)			**709**	**726**	**717**	**711**	**705**	**700**

Projected Water Demands
TWDB 2017 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.

FISHER COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
G	BITTER CREEK WSC	BRAZOS	112	108	104	104	104	104
G	COUNTY-OTHER, FISHER	BRAZOS	115	110	106	106	105	105
G	IRRIGATION, FISHER	BRAZOS	4,488	4,354	4,224	4,098	3,974	3,862
G	LIVESTOCK, FISHER	BRAZOS	634	634	634	634	634	634
G	MANUFACTURING, FISHER	BRAZOS	225	255	284	310	336	364
G	MINING, FISHER	BRAZOS	407	402	359	313	273	238
G	ROBY	BRAZOS	121	118	116	115	114	114
G	ROTAN	BRAZOS	178	170	165	164	163	163
	Sum of Projected Water Demands (acre-feet)		**6,280**	**6,151**	**5,992**	**5,844**	**5,703**	**5,584**

Projected Water Supply Needs
TWDB 2017 State Water Plan Data

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

FISHER COUNTY

All values are in acre-feet

RWPG	WUG	WUG Basin	2020	2030	2040	2050	2060	2070
G	BITTER CREEK WSC	BRAZOS	164	160	157	153	147	144
G	COUNTY-OTHER, FISHER	BRAZOS	41	46	50	50	51	51
G	IRRIGATION, FISHER	BRAZOS	802	936	1,066	1,192	1,316	1,428
G	LIVESTOCK, FISHER	BRAZOS	0	0	0	0	0	0
G	MANUFACTURING, FISHER	BRAZOS	-20	-50	-79	-105	-131	-159
G	MINING, FISHER	BRAZOS	-407	-402	-359	-313	-273	-238
G	ROBY	BRAZOS	263	266	268	269	270	270
G	ROTAN	BRAZOS	-89	-50	-60	-67	-76	-84
	Sum of Projected Water Supply Needs (acre-feet)		**-516**	**-502**	**-498**	**-485**	**-480**	**-481**

Projected Water Management Strategies
TWDB 2017 State Water Plan Data

FISHER COUNTY

WUG, Basin (RWPG)

All values are in acre-feet

Water Management Strategy	Source Name [Origin]	2020	2030	2040	2050	2060	2070
MANUFACTURING, FISHER, BRAZOS (G)							
DOCKUM AQUIFER DEVELOPMENT	DOCKUM AQUIFER [FISHER]	50	50	140	140	140	140
INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION [FISHER]	7	13	20	22	24	25
		57	**63**	**160**	**162**	**164**	**165**
MINING, FISHER, BRAZOS (G)							
DOCKUM AQUIFER DEVELOPMENT	DOCKUM AQUIFER [FISHER]	400	400	400	400	400	400
INDUSTRIAL WATER CONSERVATION	DEMAND REDUCTION [FISHER]	12	20	25	22	19	17
		412	**420**	**425**	**422**	**419**	**417**
ROBY, BRAZOS (G)							
MUNICIPAL WATER CONSERVATION (RURAL) - ROBY	DEMAND REDUCTION [FISHER]	5	13	14	13	12	12
		5	**13**	**14**	**13**	**12**	**12**
ROTAN, BRAZOS (G)							
SUBORDINATION - CRMWD SYSTEM	COLORADO RIVER MWD LAKE/RESERVOIR SYSTEM [RESERVOIR]	89	50	60	67	76	84
		89	**50**	**60**	**67**	**76**	**84**
Sum of Projected Water Management Strategies (acre-feet)		**563**	**546**	**659**	**664**	**671**	**678**

GAM RUN 16-031 MAG: MODELED AVAILABLE GROUNDWATER FOR THE SEYMOUR, BLAINE, OGALLALA, AND DOCKUM AQUIFERS IN GROUNDWATER MANAGEMENT AREA 6

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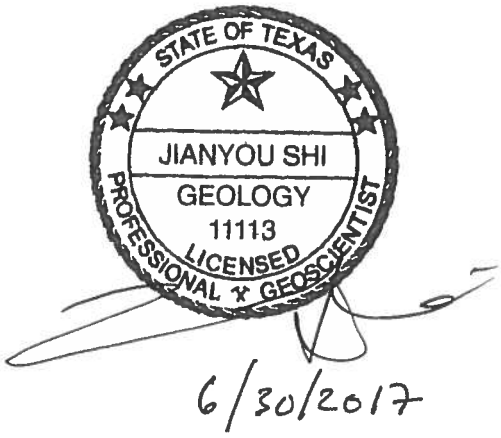
(512) 463-5076
June 30, 2017



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GAM RUN 16-031 MAG: MODELED AVAILABLE GROUNDWATER FOR THE SEYMOUR, BLAINE, OGALLALA, AND DOCKUM AQUIFERS IN GROUNDWATER MANAGEMENT AREA 6

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Groundwater Division
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(512) 463-5076
June 30, 2017

EXECUTIVE SUMMARY:

The Texas Water Development Board (TWDB) estimated the modeled available groundwater values for the following relevant aquifers in Groundwater Management Area 6:

- Seymour Aquifer – The modeled available groundwater ranges from 181,589 acre-feet per year in 2020 to 173,102 acre-feet per year in 2070, and is summarized by groundwater conservation districts and counties in Table 1, and by river basins, regional planning areas, and counties in Table 5.
- Blaine Aquifer – The modeled available groundwater ranges from 74,182 acre-feet per year in 2020 to 70,874 acre-feet per year in 2070, and is summarized by groundwater conservation districts and counties in Table 2, and by river basins, regional planning areas, and counties in Table 6.
- Ogallala Aquifer – The modeled available groundwater remains at 409 acre-feet per year between 2020 and 2070, and is summarized by groundwater conservation districts and counties in Table 3, and by river basins, regional planning areas, and counties in Table 7.
- Dockum Aquifer – The modeled available groundwater ranges from 172 acre-feet per year in 2020 to 171 acre-feet per year in 2070, and is summarized by groundwater conservation districts and counties in Table 4, and by river basins, regional planning areas, and counties in Table 8.

The modeled available groundwater values for Groundwater Management Area 6 estimated for counties is slightly different from that estimated for groundwater conservation districts because of the process for rounding the values.

The modeled available groundwater estimates are based on the desired future conditions for the Seymour, Blaine, Ogallala, and Dockum aquifers adopted by groundwater conservation district representatives in Groundwater Management Area 6 on November 17, 2016. The district representatives declared the following aquifers to be non-relevant for purposes of joint planning: the Trinity Aquifer; the Ogallala Aquifer in Collingsworth and Dickens counties; the Blaine Aquifer in King and Stonewall counties; the Dockum Aquifer in Dickens and Kent counties; and the Seymour Aquifer in Wichita, Wilbarger, Archer, Clay, Stonewall, Throckmorton, Young, Kent, and Jones counties. The TWDB determined that the explanatory report and other materials submitted by the district representatives were administratively complete on May 5, 2017.

REQUESTOR:

Mr. Mike McGuire, General Manager of Rolling Plains Groundwater Conservation District and Groundwater Management Area 6 Coordinator.

DESCRIPTION OF REQUEST:

In a letter dated January 17, 2017, Mr. Mike McGuire provided the TWDB with the desired future conditions of the Seymour, Blaine, Ogallala, and Dockum aquifers. The desired future conditions were adopted on November 17, 2016 by the groundwater conservation district representatives in Groundwater Management Area 6. The desired future conditions are:

Dockum Aquifer (Resolution No. 2016-001)

"a. The Desired Future Condition for Fisher County, located in the Clear Fork Groundwater Conservation District is that condition whereby the total decline in water levels will be no more than 27 feet during the period from 2020 - 2070

b. The Desired Future Condition for Motley County, located in the Gateway Groundwater Conservation District is that condition whereby the total decline in water levels will be no more than 27 feet during the period from 2020 - 2070

c. The Dockum Aquifer in Dickens & Kent Counties, not located within a Groundwater Conservation District, has been determined to be non-relevant for joint planning purposes."

Trinity Aquifer (Resolution No. 2016-002)

"The Trinity Group Aquifers within Groundwater Management Area 6 have been determined to be non-relevant for joint planning purposes."

Ogallala Aquifer (Resolution No. 2016-003)

"a. The Desired Future Condition for Motley County, located in the Gateway Groundwater Conservation District, is that condition with average drawdown of between 23 and 27 feet, calculated from the end of 2012 conditions to the year 2070 as documented in GMA 2 Technical Memorandum 16-01.

b. The Ogallala Aquifer in Collingsworth County, located in the Mesquite Groundwater Conservation District, is insignificant or nonexistent, and is determined to be non-relevant for joint planning purposes

c. The Ogallala Aquifer in Dickens County, not located within a Groundwater Conservation District, is determined to be non-relevant for joint planning purposes."

Blaine Aquifer (Resolution No. 2016-004)

"a. The Desired Future Condition for that part of Childress County North of the Red River, located in the Mesquite Groundwater Conservation District, all of Collingsworth and Hall Counties, also located within the Mesquite Groundwater Conservation District; and that part of Childress County North of the Red River located in the Gateway Groundwater Conservation District is that condition whereby the total decline in water levels will be no more than 9 feet during the period from 2020 - 2070

b. The Desired Future Condition for that part of Childress County south of the Red River located in the Mesquite & Gateway Groundwater Conservation Districts; and all of Cottle, Foard, and Hardeman Counties, also located within the Gateway Groundwater Conservation District, is that condition whereby the total decline in water levels will be no more than 2 feet during the period from 2020 - 2070

c. The Desired Future Condition for Fisher County, located within the Clear Fork Groundwater Conservation District, is that condition whereby the total decline in water levels will be no more than 4 feet during the period from 2020 - 2070

d. The Blaine Aquifer in Motley County, located within the Gateway Groundwater Conservation District, and in Knox County, located within the Rolling Plains Groundwater Conservation District, has been determined to be non-relevant for joint planning purposes.

e. The Blaine Aquifer in Dickens, Kent, King, Jones, and Stonewall Counties, not located within a Groundwater Conservation District, has been determined to be non-relevant for joint planning purposes."

Seymour Aquifer (Resolution No. 2016-005)

"a. The Desired Future Condition for Pod 1 in Childress [and] Collingsworth Counties, located in the Mesquite and Gateway Groundwater Conservation Districts, is that condition whereby the total decline in water levels will be no more than 33 feet during the period from 2020 - 2070

b. The Desired Future Condition for Pod 2 in Hall County, located in Mesquite Groundwater Conservation District is that condition whereby the total decline in water levels will be no more than 15 feet during the period from 2020 - 2070

c. The Desired Future Condition for Pod 3 in Briscoe, Hall [and] Motley Counties, located in the Mesquite and Gateway Groundwater Conservation Districts, is that condition whereby the total decline in water levels will be no more than 15 feet during the period from 2020 - 2070

d. The Desired Future Condition for Pod 4 in Childress, Foard, and Hardeman counties, located in Gateway Groundwater Conservation District, is that condition whereby the total decline in water levels will be no more than 1 foot during the period from 2020 – 2070

e. The Desired Future Condition for Pod 6 in Knox County, located in Rolling Plains Groundwater Conservation District is that condition whereby the total decline in water levels will be no more than 18 feet during the period from 2020 –2070

f. The Desired Future Condition for that part of Pod 7 Baylor, Haskell, and Knox Counties, located in Rolling Plains Groundwater Conservation District is that condition whereby the total decline in water levels will be no more than 18 feet during the period from 2020 - 2070

g. The Desired Future Condition for that part of Pod 8 in Baylor County, located in Rolling Plains Groundwater Conservation District is that condition whereby the total water level decline will be no more than 18 feet during the period from 2020 – 2070

h. The Desired Future Condition for that part of Pod 11 in Fisher County, located in Clear Fork Groundwater Conservation District is that condition whereby the total water level decline will be no more than 1 foot during the period from 2020 - 2070

i. The Seymour Aquifer Pods 5, 9, 10, 12, 13, 14, 15, that part of 4 in Wichita and Wilbarger counties, that part of 7 in Stonewall County, that part of 8 in Throckmorton and Young counties, and that part of 11 in Jones and Stonewall counties have been determined to be non-relevant for joint planning purposes."

After review of the submittal, the TWDB sent a request for clarification email to Mr. Mike McGuire on February 28, 2017. On March 20, 2017, Mr. McGuire responded with additional information and clarifications as noted below.

a. Predictive model format - The six predictive model runs submitted for the Seymour and Blaine aquifers were in a format that the TWDB could not open. The TWDB asked for standard MODFLOW-2000 input and output files. Mr. McGuire sent the standard MODFLOW-2000 input packages to the TWDB on a flash drive.

b. Unclear baseline condition years and baseline water level conditions for the Blaine and Seymour aquifers – The explanatory report showed a baseline year of 2020, while the modeling technical report indicated 2010. Mr. McGuire confirmed in his response that the baseline year for calculating drawdown for these two aquifers was 2010. Because this baseline year is after the end of the calibration period for both groundwater availability models (Jigmond and others, 2014; Ewing and others, 2004), available water-level data between the end of the calibration period and the baseline year were evaluated. The result of the evaluation is included in Appendix A.

c. No pumping in the Blaine Aquifer in Fisher County - The groundwater availability model for the Seymour and Blaine aquifers (Ewing and others, 2004) does not contain pumping in the Blaine Aquifer in Fisher County between 1995 and 1999. This would not only result in a zero modeled available groundwater, but would also make it impossible to match the desired future condition for the Blaine Aquifer in Fisher County. Mr. McGuire then requested the TWDB to use an even pumping distribution within the Blaine Aquifer that meets the desired future condition in the county.

d. Desired future condition of the Blaine Aquifer in Foard County - A preliminary model run indicated that even the absence of pumping would cause a drawdown larger than the desired future condition (2 feet). Mr. McGuire clarified that a ten-foot drawdown for the Blaine Aquifer in Foard County is the desired future condition.

e. Unclear baseline condition years for the Dockum and Ogallala aquifers - The desired future conditions specify a timeline from 2020 to 2070. Mr. McGuire informed TWDB to use the year 2012 as Groundwater Management Area 2 did.

f. Desired future conditions of the Dockum and Ogallala aquifer in Fisher and Motley counties – Groundwater Management Area 6 intended to use the desired future conditions from Groundwater Management Area 2 for these two aquifers in Fisher and Motley counties. In his response, Mr. McGuire stated that Groundwater Management Area 6 intended to establish the desired future conditions for the Ogallala and Dockum aquifers in Fisher and Motley counties that reflected the pumping assumptions in those counties to achieve the average drawdown of 27 feet in Groundwater Management Area 2.

g. Aquifer boundaries – Mr. McGuire informed the TWDB that all desired future conditions and associated modeled available groundwater are based on model extent boundaries.

h. Unclear averaging method for recharge (Seymour Aquifer in Haskell, Knox, and Baylor counties) – Mr. McGuire confirmed with the TWDB that the recharge is the arithmetic mean from 2001 to 2005.

i. DFC statements of "no more than" – Mr. McGuire stated that the desired future conditions are based on the average decline within the individual geographical areas described in the Desired Future Conditions Table in Section 1 of the Explanatory Report. Decline is the difference between the baseline year and 2070.

METHODS:

The desired future conditions for Groundwater Management Area 6 are based on water-level declines or drawdowns defined as the difference in well water levels between a baseline year and 2070. Depending on the aquifer, one of three groundwater availability models were used to construct predictive simulations to estimate drawdowns over the same time interval and to calculate modeled available groundwater. The aquifers and corresponding groundwater availability models were:

- Seymour Aquifer of Pod 7 in Baylor, Haskell, and Knox counties – "refined" groundwater availability model for the Seymour Aquifer (Jigmond and others, 2014)

- Seymour Aquifer (except Pod 7) and Blaine Aquifer – groundwater availability model for the Seymour and Blaine aquifers (Ewing and others, 2004)
- Ogallala and Dockum aquifers – groundwater availability model for the High Plains Aquifer System (Deeds and Jigmond, 2015)

Some of the predictive simulations employed for the modeled available groundwater calculations were part of the Groundwater Management Area 6 submittal (Nelson, 2017), while the others were developed by the TWDB (Appendix B).

One of the first steps for a predictive simulation is to verify if the model reflects real-world conditions for the selected baseline year. If the baseline year for a desired future condition falls within the model calibration period, the water levels and/or fluxes for the baseline year have been calibrated to observed data. If the baseline year is after the end of the calibration period, water levels and/or fluxes must be evaluated between the end of the calibration period and the baseline year to confirm if the model reflects real-world conditions. If water levels and/or fluxes have remained steady during this interim period, the end of the calibration period can be used for the baseline year. However, if water levels and/or fluxes have not remained steady, pumping (and sometimes recharge) is typically adjusted until water levels and/or fluxes reflect real-world conditions.

The simulated drawdown for an area (such as a county) is the average of simulated drawdowns in active model cells with centroids located within each designated area. For the Seymour, Ogallala, and Dockum aquifers, the active model cells or modeled extents are the same as, or similar to, the official aquifer boundaries. However, the modeled extent for the Blaine Aquifer is significantly larger than the official aquifer footprint in some counties, such as in Hall and Foard counties. Therefore, in Hall and Foard counties, the drawdown for the desired future condition contains the Blaine Aquifer and equivalent geologic units in the subcrop.

Another factor that affects the drawdown calculation is related to dry model cells. For this study, a model cell is considered dry when its water level falls below a cell bottom at the baseline year. A dry cell is excluded from the average drawdown calculation. This analysis is presented in Appendix C.

The following sections summarize the predictive simulations submitted by Groundwater Management Area 6 and the predictive simulations by the TWDB. The water level drawdowns calculated by these predictive model runs are presented in Appendix B, which can be compared with the desired future conditions.

Seymour Aquifer of Pod 7 in Baylor, Haskell, and Knox Counties

Three predictive simulations submitted by Nelson (2017) were developed from runs using the refined groundwater availability model for the Seymour Aquifer in Baylor, Haskell, and Knox counties (Jigmond and others, 2014). This refined groundwater availability model only covers Pod 7 of the Seymour Aquifer (Figure 1). The predictive simulations included the calibrated period (1949 through 2005) and a predictive period (2006 through 2070). The predictive period used annual time intervals with three different pumping scenarios: 100, 80, or 75 percent of the average pumping of the last five years (2001-2005) of the calibration period (Jigmond and others, 2014).

Because the baseline year for the desired future condition (2010) is after the end of the calibration period, the TWDB evaluated the water-level data at selected wells from winter months between 2005 and 2010. Figure A1 (in Appendix A) shows the average water-level change from 2005 to 2010 in the Seymour Aquifer in Baylor, Haskell, and Knox counties. The average water levels have been stable over the selected time interval. As a result, the TWDB determined that further refinement of pumping was not necessary for the period between 2005 and 2010, and determined that conditions at the end of the calibration period can be used as conditions for the baseline year.

Next, the TWDB checked the MODFLOW-2000 well packages for the predictive simulations and found no problem with the pumping scenario that used 100 percent of the average pumping of the last five years of the groundwater availability model (2001 through 2005). As a result, the TWDB ran this scenario to obtain the MODFLOW-2000 output files. The head output file was used to calculate the drawdowns between 2010 and 2070. The TWDB then compared the drawdowns with the desired future conditions for the Seymour Aquifer in Pod 7 in these three counties. The comparison indicates that the drawdowns do not exceed the desired future conditions (Table B1 in Appendix B).

Seymour and Blaine Aquifers (excluding Pod 7 of Seymour)

The other three predictive simulations by Nelson (2017) were based on the groundwater availability model for the Seymour and Blaine aquifers (Figure 2; Ewing and others, 2004). The predictive simulations were used to determine the desired future conditions for the Blaine Aquifer and all the Seymour Aquifer except Pod 7, which was covered by the refined model described earlier. The predictive simulations included the calibrated period (1975 through 1999) and a predictive period (2000 through 2070). The predictive period used annual time interval with three different pumping scenarios: 100, 75, or 50 percent of the average pumping of the last five years of the calibrated model, 1995 through 1999 (Ewing and others, 2004).

Because the baseline year (2010) is after the end of the calibration period (1999), TWDB evaluated the water-level data at selected wells from winter months between 1999 and 2010. Figure A2 (in Appendix A) illustrates the average water-level change from 1999 to 2010 in the Seymour Aquifer within Groundwater Management Area 6. For the Blaine Aquifer, only one well from Childress County (State Well Number 1231804) meets the selection criterion and its hydrograph is presented in Figure A3. Nevertheless, Figures A2 and A3 indicate that the water level has not significantly changed over the selected time interval. As a result, the TWDB determined that further model refinement of pumping was not necessary for the period between 1999 and 2010, and determined that conditions at the end of the calibration period can be used as conditions for the baseline year.

The TWDB also checked the MODFLOW-2000 well packages for the predictive simulations from Nelson (2017) and discovered a significant inconsistency between the well package from the submittal and that from the TWDB's calculation for the 100-percent pumping scenario based on the last five years of the calibrated groundwater availability model for the Seymour and Blaine aquifers. As a result, the TWDB developed a new predictive simulation for the Seymour and Blaine aquifers using the groundwater availability model by Ewing and others (2004). Because, as discussed above, the water levels did not change much from 1999 to 2010, this predictive simulation uses the water levels of the last stress period (1999) of the groundwater availability model as the initial head for the baseline year (2010). This new predictive simulation runs from 2011 through 2070 with an annual interval and the average recharge of 1995 through 1999 of the calibrated groundwater availability model as stated in the explanatory report and Mr. McGuire's response. The initial pumping is based on the average of the last five years of the calibrated model but was adjusted during the model run to meet the desired future conditions for the Seymour Aquifer (excluding Pod 7) (Table B1 in Appendix B) and Blaine Aquifer (Table B2 in Appendix B).

Ogallala and Dockum Aquifers

Per Mr. McGuire's request, the TWDB used the predictive simulation for the desired future conditions adopted by Groundwater Management Area 2 to reproduce the desired future conditions and to calculate the modeled available groundwater for Groundwater Management Area 6. This predictive simulation ran from 2013 through 2017, with a baseline year of 2012, the same year as the last stress period of the calibrated groundwater availability model by Deeds and Jigmond (2015). The predictive simulation used all boundary conditions from the last stress period of the groundwater availability model except the pumping package, which was modified and adjusted during the model run to meet the desired future conditions of Groundwater Management Area 2 (see GAM Run 16-

028 for details). The simulated drawdown or desired future conditions are presented in Tables B3 and B4 of Appendix B.

Modeled Available Groundwater

Once the predictive simulations met the desired future conditions, the modeled available groundwater values were extracted from the MODFLOW cell-by-cell budget files. Annual pumping rates were then divided by county, river basin, regional water planning area, and groundwater conservation district within Groundwater Management Area 6 (Figures 1 through 6 and Tables 1 through 6).

Modeled Available Groundwater and Permitting

As defined in Chapter 36 of the Texas Water Code, "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 in order 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.

PARAMETERS AND ASSUMPTIONS:

The parameters and assumptions for the groundwater availability simulations are described below:

Seymour Aquifer of Pod 7 in Baylor, Haskell, and Knox Counties

- The groundwater availability model for the Seymour Aquifer of Pod 7 by Jigmond and others (2014) was extended to include the predictive model simulation for this analysis (Nelson, 2017).
- The model has one layer, which represents the Seymour Aquifer.
- The model was run with MODFLOW-2000 (Harbaugh and others, 2000).
- During the predictive model run, some model cells went dry (Table C1 of Appendix C).

- Estimates of modeled drawdown and available groundwater from the model simulation were rounded to whole numbers.

Seymour and Blaine Aquifers

- Version 1.01 of the groundwater availability model for the Seymour and Blaine aquifers (Ewing and others, 2004) was updated to include the predictive model simulation for this analysis.

- The model has two layers that represent the Seymour Aquifer (Layer 1) and the Blaine Aquifer as well as other geologic units that underlie the Seymour Aquifer (Layer 2).

- The model was run with MODFLOW-2000 (Harbaugh and others, 2000).

- During the predictive model run, some model cells went dry (Table C2 of Appendix C).

- Estimates of modeled drawdown and available groundwater from the model simulation were rounded to whole numbers.

Ogallala and Dockum Aquifers

- Version 1.01 of the groundwater availability model for the High Plains Aquifer System by Deeds and Jigmond (2015) was used to develop the predictive model simulation used for this analysis (Hutchison, 2016d).

- The model has four layers which represent the Ogallala and Pecos Valley Alluvium aquifers (Layer 1); the Edwards-Trinity (High Plains), Rita Blanca, 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 where the Upper Dockum Aquifer was absent but the cells provided a pathway for flow between the Lower Dockum and the Ogallala or Edwards-Trinity (High Plains) aquifers vertically. These pass-through cells were excluded from the modeled available groundwater calculation.

- The model was run with MODFLOW-NWT (Niswonger and others, 2011). The model uses the Newton-Raphson 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.

- During the predictive model run, no model cells within Groundwater Management Area 6 went dry.

- Estimates of modeled drawdown and available groundwater from the model simulation were rounded to whole numbers.

RESULTS:

The modeled available groundwater for the Seymour Aquifer that achieves the desired future condition adopted by Groundwater Management Area 6 slightly decreases from 181,589 to 173,102 acre-feet per year between 2020 and 2070. The modeled available groundwater is summarized by groundwater conservation district and county in Table 1. Table 5 summarizes the modeled available groundwater by county, river basin, and regional water planning area for use in the regional water planning process.

The modeled available groundwater for the Blaine Aquifer that achieves the desired future condition adopted by Groundwater Management Area 6 decreases slightly from 74,182 to 70,874 acre-feet per year between 2020 and 2070. The modeled available groundwater is summarized by groundwater conservation district and county in Table 2. Table 6 summarizes the modeled available groundwater by county, river basin, and regional water planning area for use in the regional water planning process.

The modeled available groundwater for the Ogallala Aquifer that achieves the desired future condition adopted by Groundwater Management Area 6 remains at 409 acre-feet per year between 2020 and 2070. The modeled available groundwater is summarized by groundwater conservation district and county in Table 3. Table 7 summarizes the modeled available groundwater by county, river basin, and regional water planning area for use in the regional water planning process.

The modeled available groundwater for the Dockum Aquifer that achieves the desired future condition adopted by Groundwater Management Area 6 remains at about 172 acre-feet per year between 2020 and 2070. The modeled available groundwater is summarized by groundwater conservation district and county in Table 4. Table 8 summarizes the modeled available groundwater by county, river basin, and regional water planning area for use in the regional water planning process.

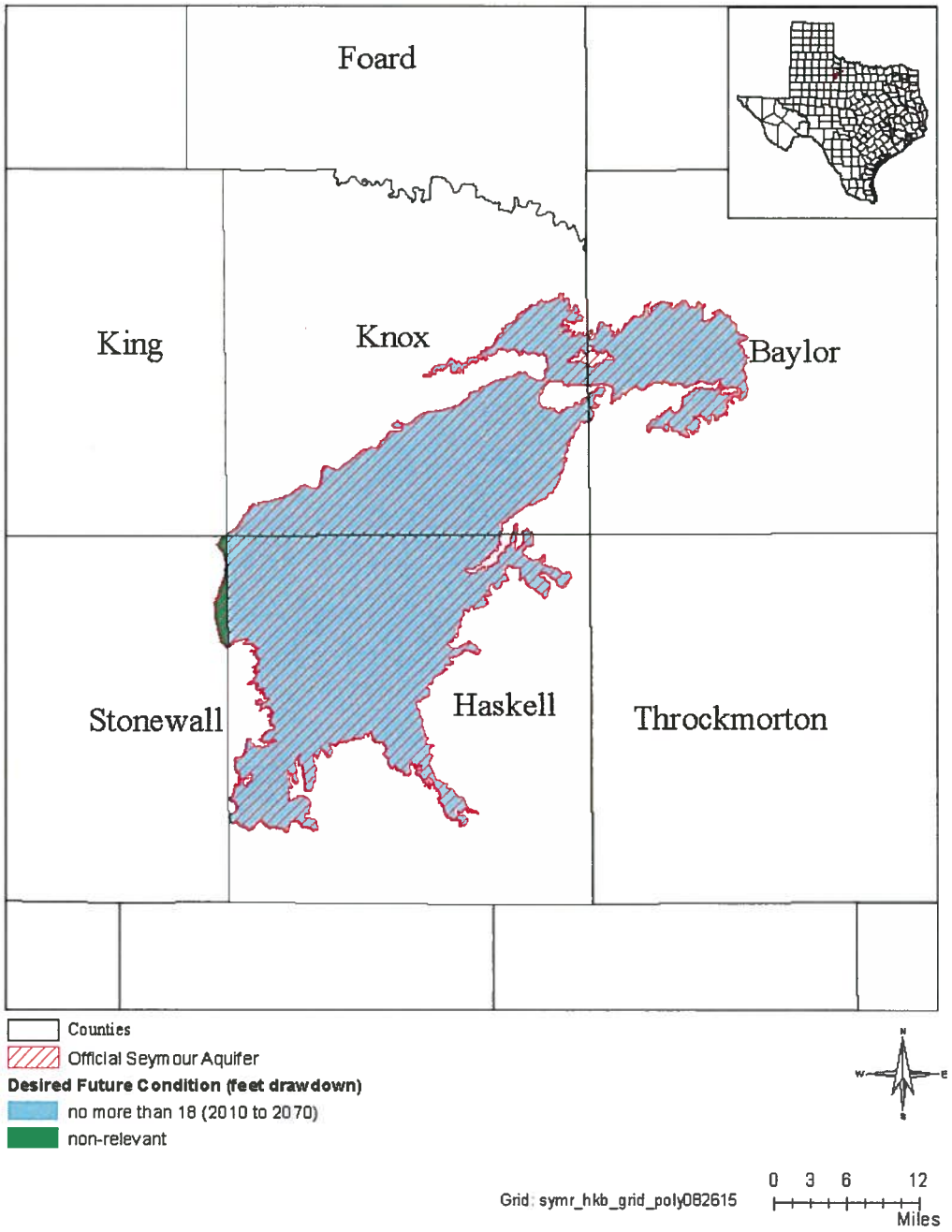

FIGURE 1. MAP SHOWING THE AREA COVERED BY THE REFINED GROUNDWATER AVAILABILITY MODEL FOR THE SEYMOUR AQUIFER POD 7, WHICH INCLUDES BAYLOR, HASKELL, AND KNOX COUNTIES WITHIN GROUNDWATER MANAGEMENT AREA 6.

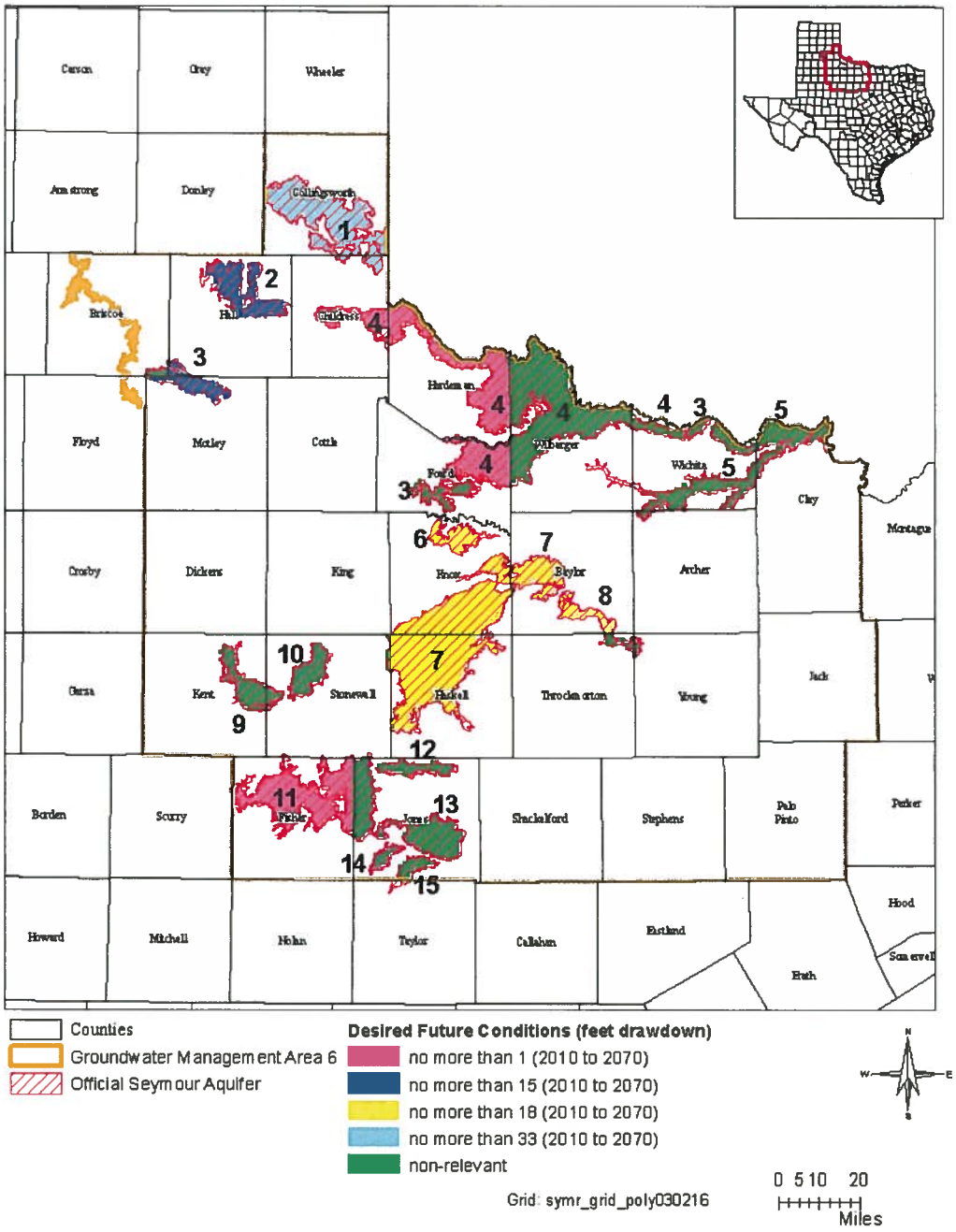

FIGURE 2. MAP SHOWING THE AREA COVERED BY THE SEYMOUR AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE SEYMOUR AND BLAINE AQUIFERS WITHIN GROUNDWATER MANAGEMENT AREA 6. THE INTEGERS IN THE FIGURE ARE SEYMOUR AQUIFER POD NUMBERS.

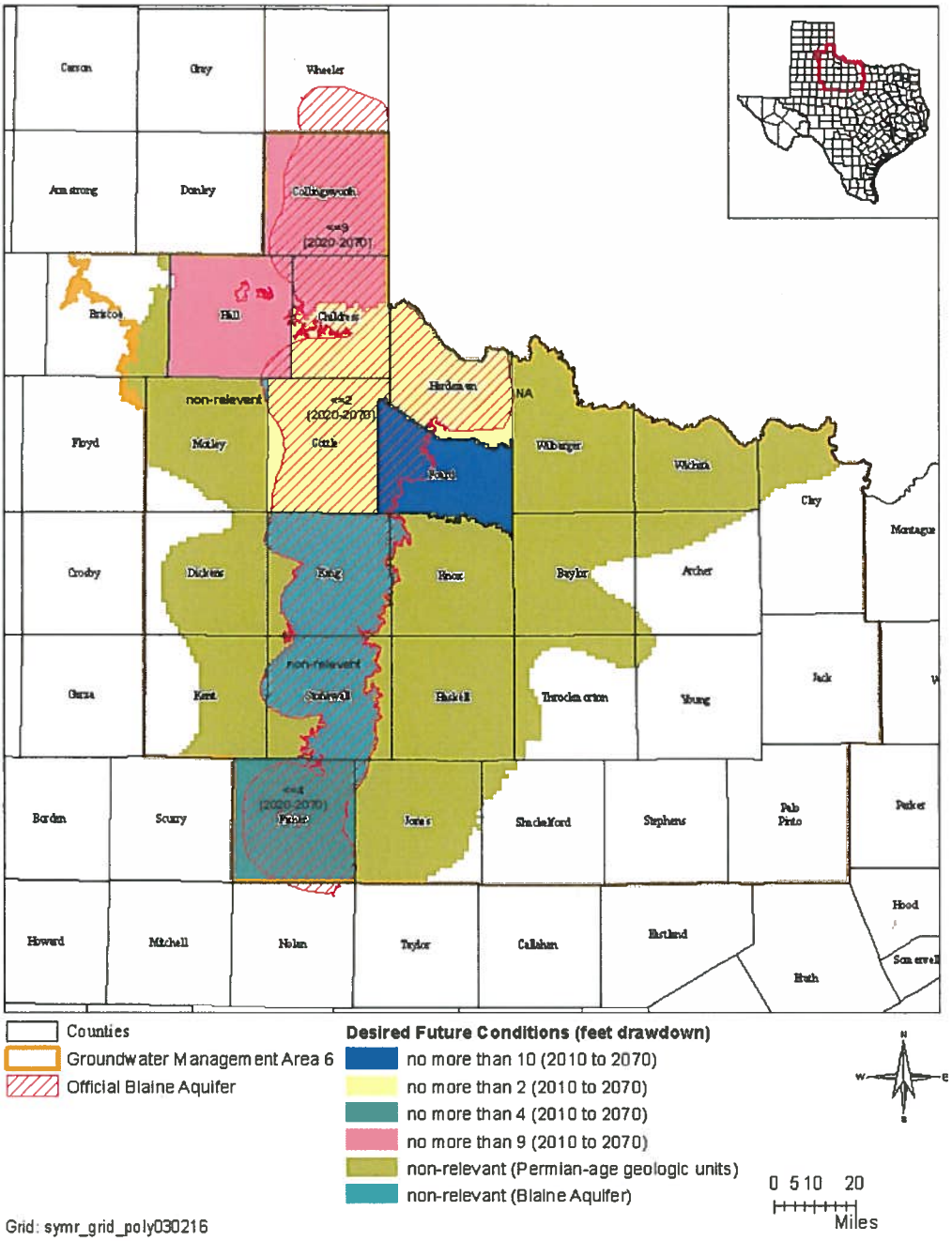

FIGURE 3. MAP SHOWING THE AREA COVERED BY THE BLAINE AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE SEYMOUR AND BLAINE AQUIFERS WITHIN GROUNDWATER MANAGEMENT AREA 6.

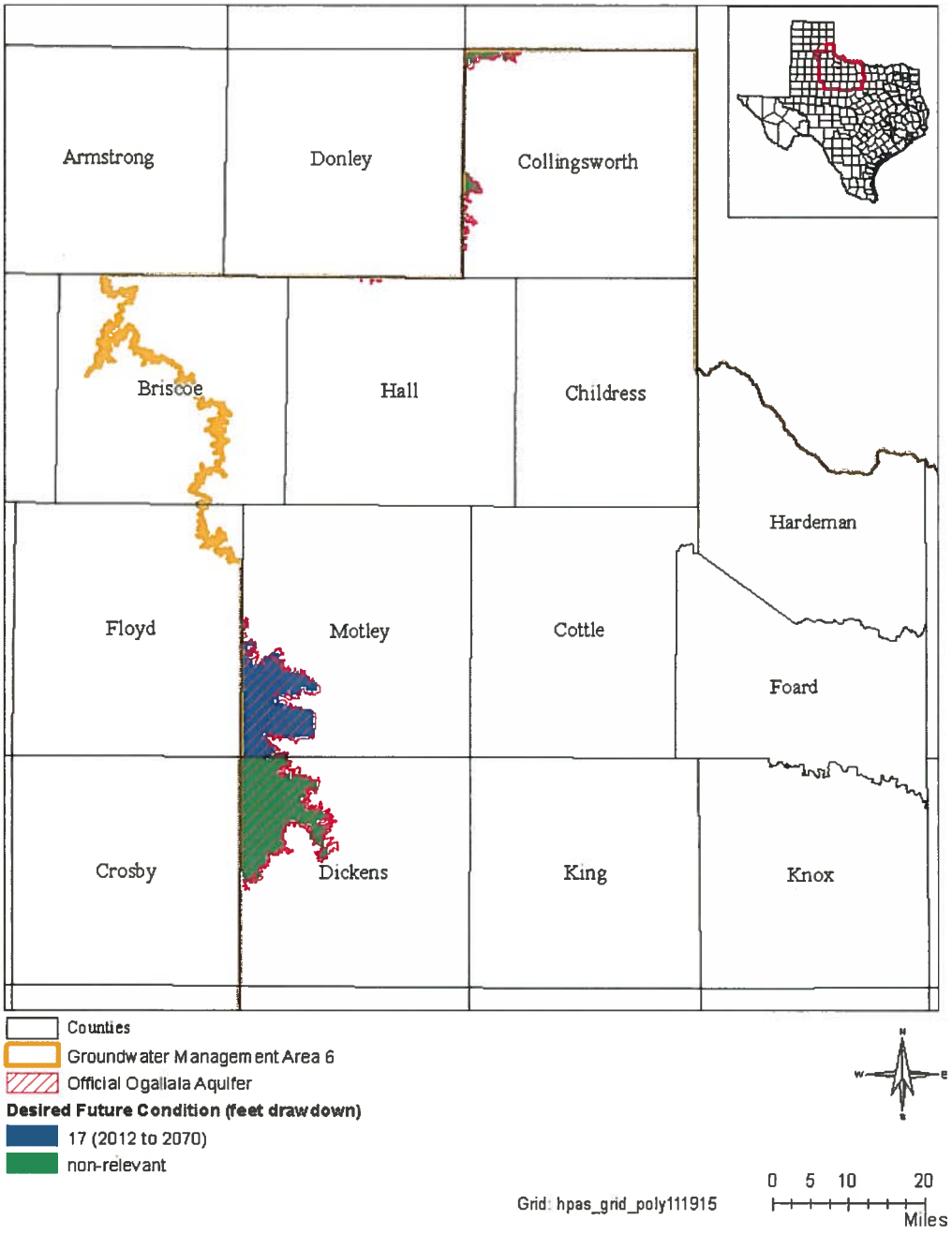

FIGURE 4. MAP SHOWING THE AREA COVERED BY THE OGALLALA AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE HIGH PLAINS AQUIFER SYSTEM WITHIN GROUNDWATER MANAGEMENT AREA 6.

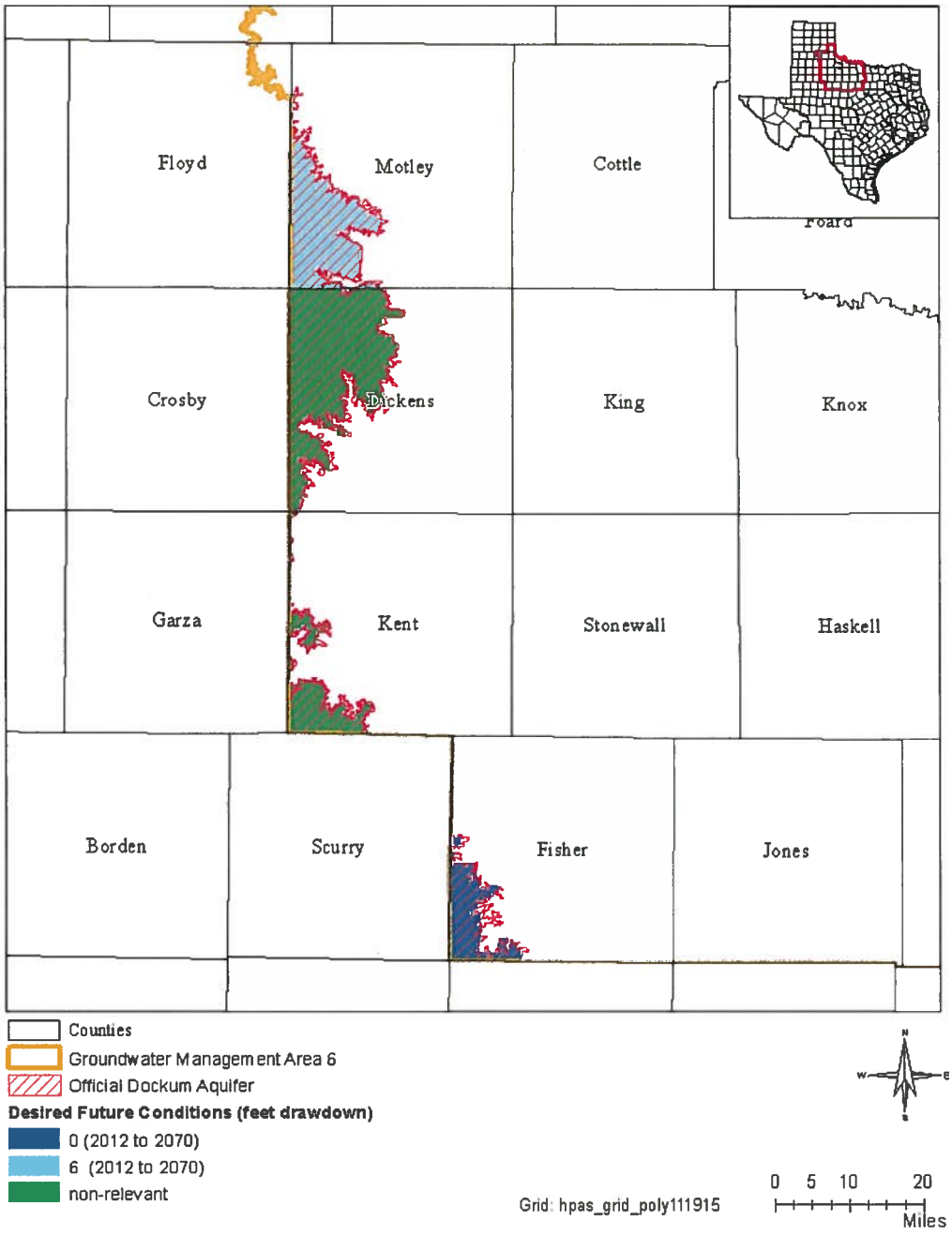

FIGURE 5. MAP SHOWING THE AREA COVERED BY THE DOCKUM AQUIFER IN THE GROUNDWATER AVAILABILITY MODEL FOR THE HIGH PLAINS AQUIFER SYSTEM WITHIN GROUNDWATER MANAGEMENT AREA 6.

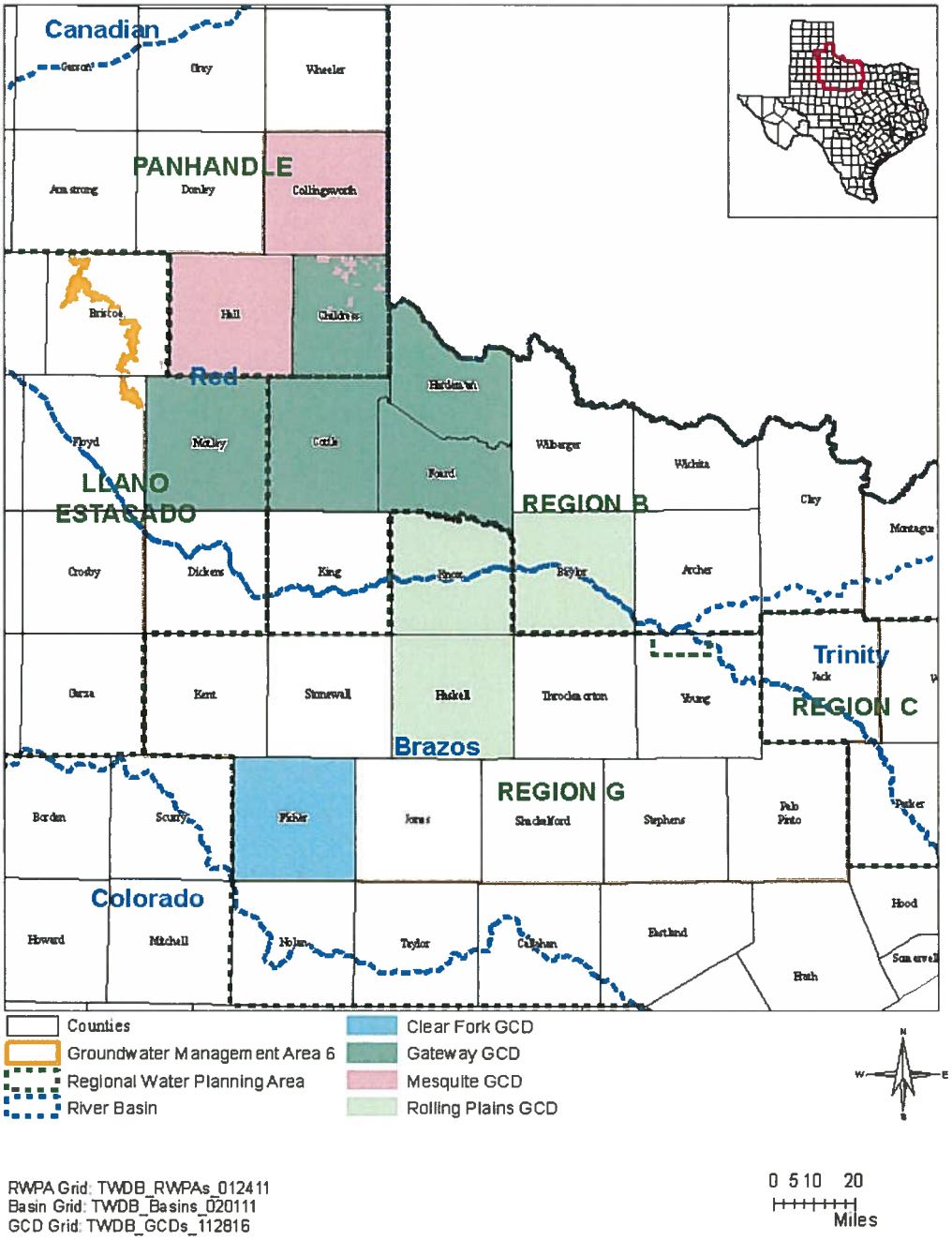

FIGURE 6. MAP SHOWING REGIONAL WATER PLANNING AREAS, GROUNDWATER CONSERVATION DISTRICTS (GCD), COUNTIES, AND RIVER BASINS IN GROUNDWATER MANAGEMENT AREA 6.

TABLE 1. MODELED AVAILABLE GROUNDWATER FOR THE SEYMOUR AQUIFER IN GROUNDWATER MANAGEMENT AREA 6 SUMMARIZED BY GROUNDWATER CONSERVATION DISTRICT (GCD) AND COUNTY FOR EACH DECADE BETWEEN 2010 AND 2070. VALUES ARE IN ACRE-FEET PER YEAR.

Groundwater Conservation District	County	Seymour Aquifer Pod	2010	2020	2030	2040	2050	2060	2070
Clear Fork GCD	**Fisher**	**11**	**2,325**	**6,718**	**6,132**	**6,149**	**6,472**	**6,490**	**6,131**
Gateway GCD	Childress	4	40	2,875	3,230	3,301	3,292	3,301	3,282
Gateway GCD	Foard	4	4,278	11,897	4,945	5,389	8,066	7,815	3,943
Gateway GCD	Hardeman	4	531	20,378	13,040	18,885	17,520	20,002	32,868
Gateway GCD	Motley	3	2,098	4,843	6,679	4,843	4,830	3,972	3,961
Gateway GCD Total			**6,947**	**39,993**	**27,894**	**32,418**	**33,708**	**35,090**	**44,054**
Mesquite GCD	Childress	1	15	86	16	16	16	16	16
Mesquite GCD	Collingsworth	1	17,628	41,345	31,492	28,657	27,165	22,395	22,769
Mesquite GCD	Hall	2	6,837	15,446	16,751	19,666	22,861	25,861	24,595
Mesquite GCD Total			**24,480**	**56,877**	**48,259**	**48,339**	**50,042**	**48,272**	**47,380**
Rolling Plains GCD	Baylor	7	1,426	1,430	1,426	1,430	1,426	1,430	1,426
Rolling Plains GCD	Baylor	8	14	5,785	5,903	5,547	5,304	5,177	5,503
Rolling Plains GCD	Haskell	7	41,636	41,750	41,636	41,750	41,636	41,750	41,636
Rolling Plains GCD	Knox	7	25,641	25,712	25,641	25,712	25,641	25,712	25,641
Rolling Plains GCD	Knox	6	12	3,324	998	512	888	3,454	1,331
Rolling Plains GCD Total			**68,729**	**78,001**	**75,604**	**74,951**	**74,895**	**77,523**	**75,537**
Groundwater Management Area 6			**102,481**	**181,589**	**157,889**	**161,857**	**165,117**	**167,375**	**173,102**

TABLE 2. MODELED AVAILABLE GROUNDWATER FOR THE BLAINE AQUIFER IN GROUNDWATER MANAGEMENT AREA 6 SUMMARIZED BY GROUNDWATER CONSERVATION DISTRICT (GCD) AND COUNTY FOR EACH DECADE BETWEEN 2010 AND 2070. VALUES ARE IN ACRE-FEET PER YEAR.

Groundwater Conservation District	County	2010	2020	2030	2040	2050	2060	2070
ClearFork GCD	**Fisher**	**0**	**12,855**	**12,820**	**12,855**	**12,820**	**12,855**	**12,820**
Gateway GCD	Childress	3,577	17,618	17,570	17,618	17,570	17,618	17,570
Gateway GCD	Cottle	2,688	14,766	11,621	11,653	11,621	11,653	11,621
Gateway GCD	Foard	26	6,582	6,564	6,582	6,564	6,582	6,564
Gateway GCD	Hardeman	4,233	8,488	8,465	8,488	8,465	8,488	8,465
Gateway GCD Total		**10,524**	**47,454**	**44,220**	**44,341**	**44,220**	**44,341**	**44,220**
Mesquite GCD	Childress	1,034	5,957	5,940	5,957	5,940	5,957	5,940
Mesquite GCD	Collingsworth	6,851	2,060	2,054	2,060	2,054	2,060	2,054
Mesquite GCD	Hall	10	5,856	5,840	5,856	5,840	5,856	5,840
Mesquite GCD Total		**7,895**	**13,873**	**13,834**	**13,873**	**13,834**	**13,873**	**13,834**
Groundwater Management Area 6		**18,419**	**74,182**	**70,874**	**71,069**	**70,874**	**71,069**	**70,874**

TABLE 3. MODELED AVAILABLE GROUNDWATER FOR THE OGALLALA AQUIFER IN GROUNDWATER MANAGEMENT AREA 6 SUMMARIZED BY GROUNDWATER CONSERVATION DISTRICT (GCD) AND COUNTY FOR EACH DECADE BETWEEN 2012 AND 2070. VALUES ARE IN ACRE-FEET PER YEAR.

GCD	County	2012	2020	2030	2040	2050	2060	2070
Gateway GCD	Motley	409	409	409	409	409	409	409
Groundwater Management Area 6		**409**	**409**	**409**	**409**	**409**	**409**	**409**

TABLE 4. MODELED AVAILABLE GROUNDWATER FOR THE DOCKUM AQUIFER IN GROUNDWATER MANAGEMENT AREA 6 SUMMARIZED BY GROUNDWATER CONSERVATION DISTRICT (GCD) AND COUNTY FOR EACH DECADE BETWEEN 2012 AND 2070. VALUES ARE IN ACRE-FEET PER YEAR.

GCD	County	2012	2020	2030	2040	2050	2060	2070
Gateway GCD	Motley	93	93	93	93	92	92	92
Clear Fork GCD	Fisher	79	79	79	79	79	79	79
Groundwater Management Area 6		**172**	**172**	**172**	**172**	**171**	**171**	**171**

TABLE 5. MODELED AVAILABLE GROUNDWATER BY DECADE FOR THE SEYMOUR AQUIFER IN GROUNDWATER MANAGEMENT AREA 6. RESULTS ARE IN ACRE-FEET PER YEAR AND ARE SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN.

County	RWPA	River Basin	Seymour Pod Number	2020	2030	2040	2050	2060	2070
Baylor	Region B	Brazos	7	1,136	1,133	1,136	1,133	1,136	1,133
Baylor	Region B	Red	7	294	294	294	294	294	294
Baylor	Region B	Brazos	8	5,785	5,903	5,547	5,304	5,177	5,503
Childress	Panhandle	Red	1 and 4	2,961	3,246	3,317	3,308	3,317	3,297
Collingsworth	Panhandle	Red	1	41,345	31,492	28,657	27,165	22,395	22,769
Fisher	Region G	Brazos	11	6,718	6,132	6,149	6,472	6,490	6,131
Foard	Region B	Red	4	11,897	4,945	5,389	8,066	7,815	3,943
Hall	Panhandle	Red	2 and 3	15,446	16,751	19,666	22,861	25,861	24,595
Hardeman	Region B	Red	4	20,378	13,040	18,885	17,520	20,002	32,868
Haskell	Region G	Brazos	7	41,750	41,636	41,750	41,636	41,750	41,636
Knox	Region G	Brazos	7	25,699	25,629	25,699	25,629	25,699	25,629
Knox	Region G	Red	7	13	13	13	13	13	13
Knox	Region G	Red	6	3,324	998	512	888	3,454	1,331
Motley	Llano Estacado	Red	3	4,843	6,679	4,843	4,830	3,972	3,961
Groundwater Management Area 6				**181,589**	**157,891**	**161,857**	**165,119**	**167,375**	**173,103**

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

County	RWPA	River Basin	2020	2030	2040	2050	2060	2070
Childress	Panhandle	Red	23,575	23,510	23,575	23,510	23,575	23,510
Collingsworth	Panhandle	Red	2,060	2,054	2,060	2,054	2,060	2,054
Cottle	Region B	Red	14,766	11,621	11,653	11,621	11,653	11,621
Fisher	Region G	Brazos	12,855	12,820	12,855	12,820	12,855	12,820
Foard	Region B	Red	6,582	6,564	6,582	6,564	6,582	6,564
Hall	Panhandle	Red	5,856	5,840	5,856	5,840	5,856	5,840
Hardeman	Region B	Red	8,488	8,465	8,488	8,465	8,488	8,465
Groundwater Management Area 6			**74,182**	**70,874**	**71,069**	**70,874**	**71,069**	**70,874**

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

County	RWPA	River Basin	2020	2030	2040	2050	2060	2070
Motley	Llano Estacado	Red	409	409	409	409	409	409
Groundwater Management Area 6			**409**	**409**	**409**	**409**	**409**	**409**

TABLE 8. MODELED AVAILABLE GROUNDWATER BY DECADE FOR THE DOCKUM AQUIFER IN GROUNDWATER MANAGEMENT AREA 6. RESULTS ARE IN ACRE-FEET PER YEAR AND ARE SUMMARIZED BY COUNTY, REGIONAL WATER PLANNING AREA (RWPA), AND RIVER BASIN.

County	RWPA	River Basin	2020	2030	2040	2050	2060	2070
Fisher	Region G	Brazos	79	79	79	79	79	79
Motley	Llano Estacado	Red	93	93	93	92	92	92
Groundwater Management Area 6			**172**	**172**	**172**	**171**	**171**	**171**

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 historic groundwater flow conditions includes the assumptions about the location in the aquifer where historic pumping was placed. Understanding the amount and location of historic 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 historic 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.

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Appendix A

Water Level Hydrograph

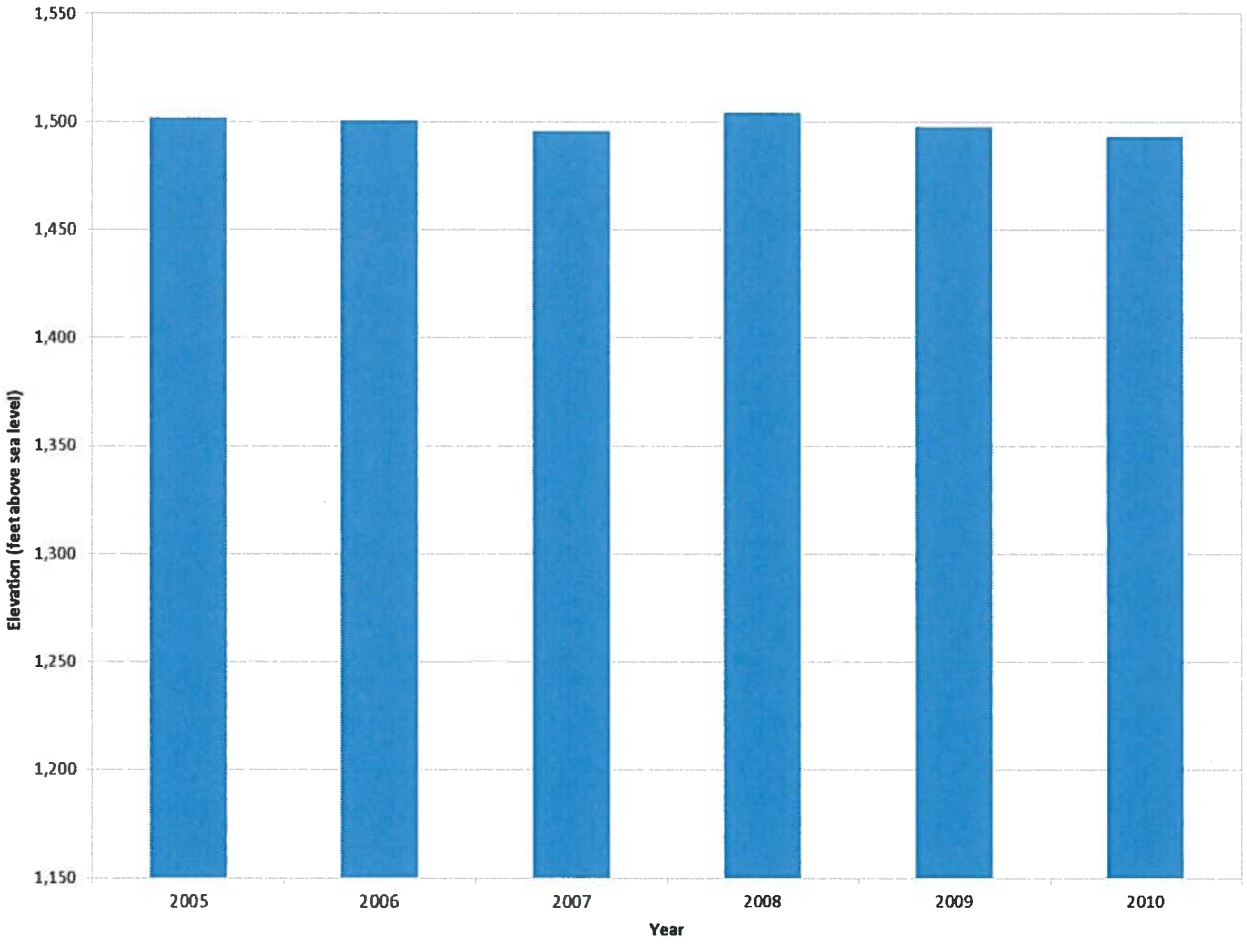

FIGURE A1. AVERAGE WATER-LEVEL HYDROGRAPH OF SEYMOUR AQUIFER IN BAYLOR, HASKELL, AND KNOX COUNTIES BETWEEN 2005 AND 2010.

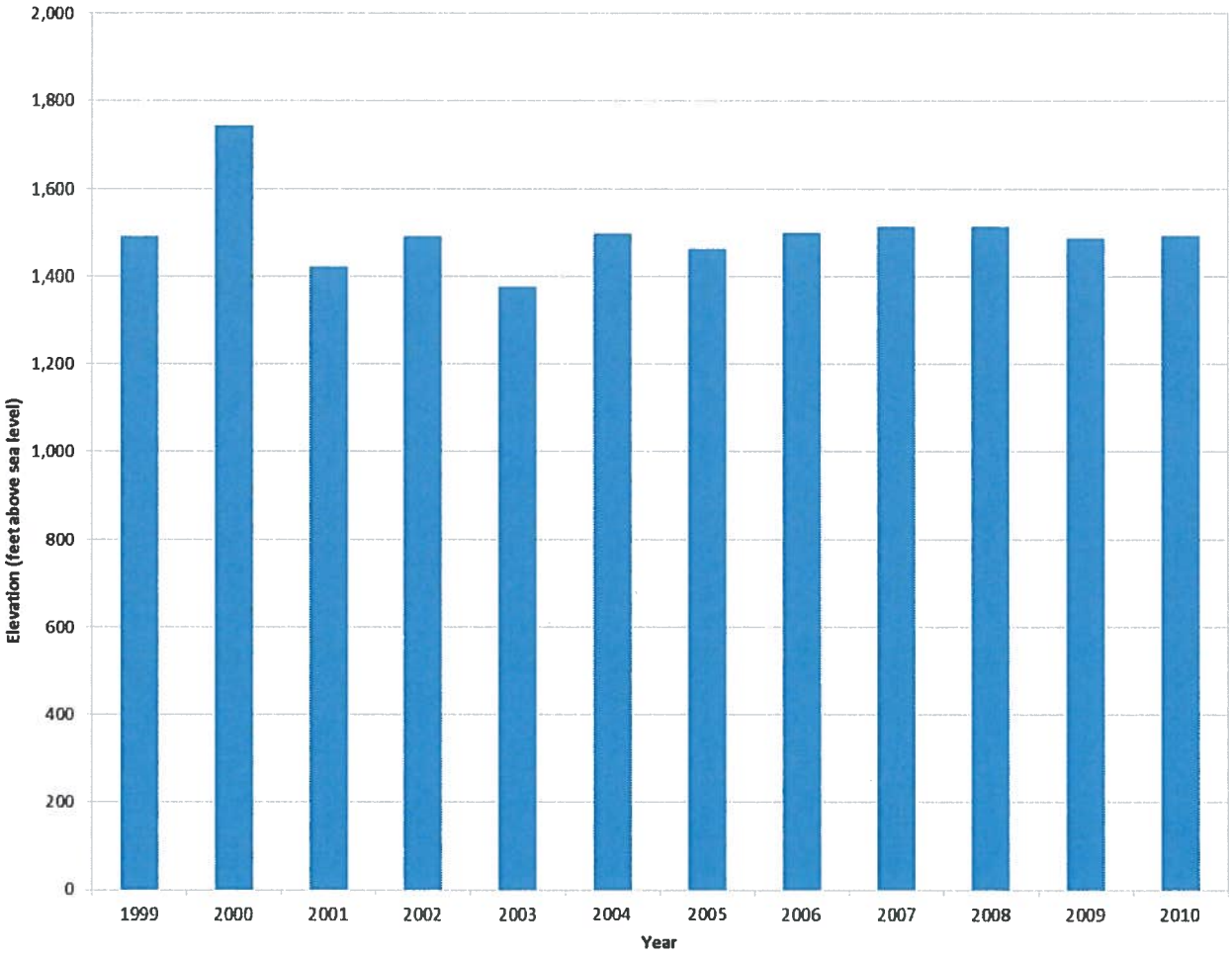

FIGURE A2. AVERAGE WATER-LEVEL HYDROGRAPH OF SEYMOUR AQUIFER IN BAYLOR, HASKELL, AND KNOX COUNTIES BETWEEN 1999 AND 2010.

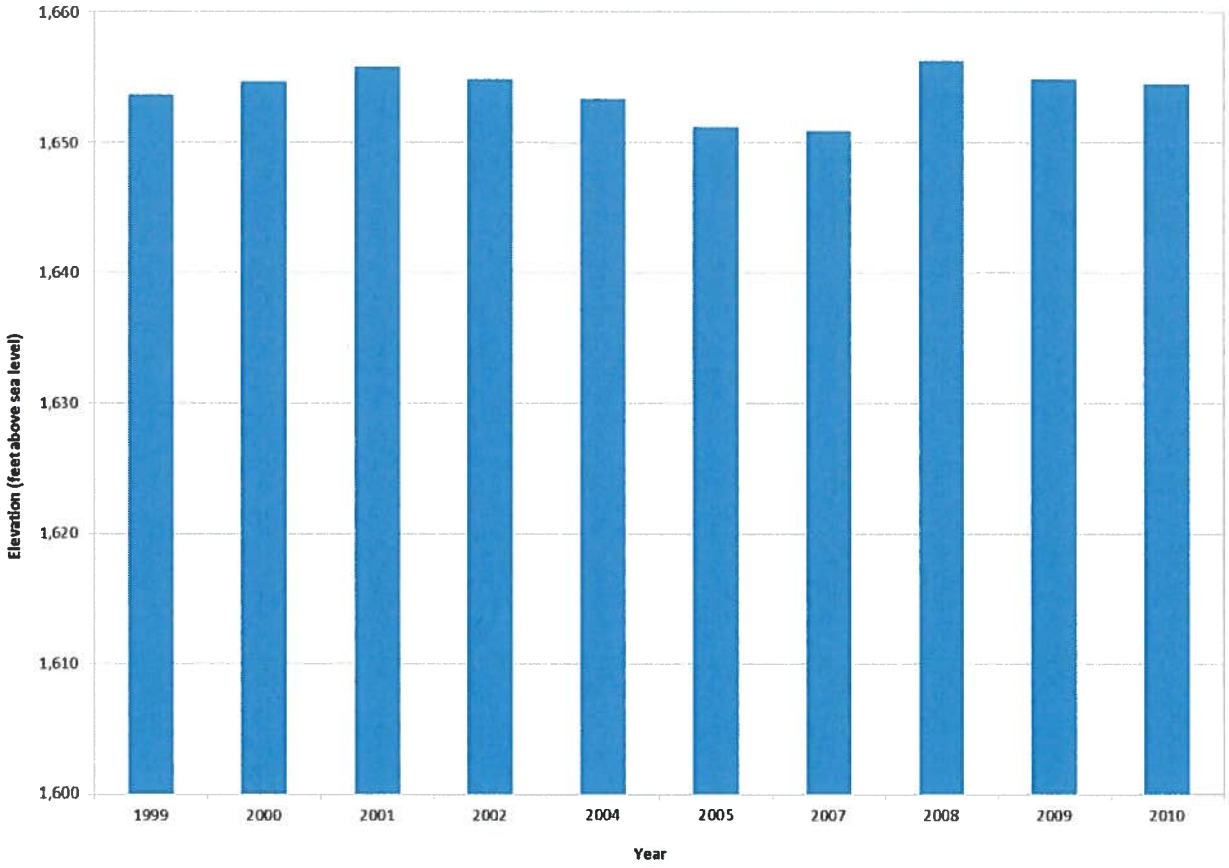

FIGURE A3. WATER-LEVEL HYDROGRAPH OF BLAINE AQUIFER IN CHILDRESS COUNTY (STATE WELL NUMBER 1231804) BETWEEN 1999 AND 2010.

Appendix B

Desired Future Conditions and Simulated Drawdowns

TABLE B1. MODELED DRAWDOWN IN SEYMOUR AQUIFER IN GROUNDWATER MANAGEMENT AREA (GMA) 6. MODELED DRAWDOWN WAS CALCULATED BY TWDB BASED ON MODFLOW HEAD FILE FROM GMA 6 SUBMITTAL, WHICH USED AVERAGE PUMPING OF LAST FIVE YEARS OF THE CALIBRATED MODEL. PUMPING WAS SLIGHTLY MODIFIED, AS NEEDED.

Seymour Aquifer Pod	County	Groundwater Conservation District	Modeled Drawdown (feet 2010 to 2070)	Desired Future Condition (feet drawdown)	Groundwater Availability Model
1	Childress, Collingsworth	Mesquite, Gateway	22.41	no more than 33	Ewing and others (2004)
2	Hall	Mesquite	9.91	no more than 15	Ewing and others (2004)
3	Briscoe, Hall, and Motley	Mesquite, Gateway	13.23	no more than 15	Ewing and others (2004)
4	Childress, Foard, and Hardeman	Gateway	0.97	no more than 1.0	Ewing and others (2004)
6	Knox	Rolling Plains	12.46	no more than 18	Ewing and others (2004)
7	Baylor, Haskell, and Knox	Rolling Plains	7.30	no more than 18	Jigmond and others (2014)
8	Baylor	Rolling Plains	14.80	no more than 18	Ewing and others (2004)
11	Fisher	Clear Fork	0.86	no more than 1.0	Ewing and others (2004)

TABLE B2. MODELED DRAWDOWN IN BLAINE AQUIFER IN GROUNDWATER MANAGEMENT AREA 6. MODELED DRAWDOWN WAS CALCULATED BASED ON A PREDICTIVE SIMULATION BY TWDB.

County	Groundwater Conservation District	Modeled Drawdown (feet 2010 to 2070)	Desired Future Condition (feet drawdown)	Groundwater Availability Model
Childress North of Red River	Mesquite, Gateway	5.94	no more than 9	Ewing and others (2004)
Childress South of Red River	Gateway	1.93	no more than 2	Ewing and others (2004)
Collingsworth	Mesquite	8.43	no more than 9	Ewing and others (2004)
Cottle	Gateway	1.68	no more than 2	Ewing and others (2004)
Fisher	Clear Fork	2.41	no more than 4	Ewing and others (2004)
Foard	Gateway	6.48	no more than 10	Ewing and others (2004)
Hall	Mesquite	4.79	no more than 9	Ewing and others (2004)
Hardeman	Gateway	1.15	no more than 2	Ewing and others (2004)

TABLE B3. MODELED DRAWDOWN IN OGALLALA AQUIFER IN GROUNDWATER MANAGEMENT AREA (GMA) 6. MODELED DRAWDOWN WAS BASED ON GMA 2 DESIRED FUTURE CONDITIONS GROUNDWATER PREDICTIVE MODEL.

County	Groundwater Conservation District	Modeled Drawdown (feet 2010 to 2070)	Desired Future Condition (feet drawdown)	Groundwater Availability Model
Motley	Gateway	17	17	Deeds and Jigmond (2015)

TABLE B4. MODELED DRAWDOWN IN DOCKUM AQUIFER IN GROUNDWATER MANAGEMENT AREA (GMA) 6. MODELED DRAWDOWN WAS BASED ON GMA 2 DESIRED FUTURE CONDITIONS GROUNDWATER PREDICTIVE MODEL.

County	Groundwater Conservation District	Modeled Drawdown (feet 2010 to 2070)	Desired Future Condition (feet drawdown)	Groundwater Availability Model
Fisher	Clear Fork	0	0	Deeds and Jigmond (2015)
Motley	Gateway	6	6	Deeds and Jigmond (2015)

Appendix C

Summary of Model Dry Cells

TABLE C1. MODEL DRY CELLS FROM PREDICTIVE SIMULATION OF SEYMOUR AQUIFER OF POD 7 IN BAYLOR, HASKELL, AND KNOX COUNTIES.

County	Stress Periods	Active Cells	Dry Cells	Wet Cells	Percent of Dry Cells
Baylor	1 to 408 (1980 to 2070)	5,753	401	5,352	7
Haskell	1 to 408 (1980 to 2070)	23,697	596	23,101	3
Knox	1 to 408 (1980 to 2070)	15,927	3,117	12,810	20

TABLE C2. MODEL DRY CELLS FROM PREDICTIVE SIMULATION OF SEYMOUR AND BLAINE AQUIFERS.

Desired Future Condition Zone	Stress Period	Active Cells	Dry Cells	Wet Cells	Percent of Dry Cells
Seymour (Pod 1)	1 to 60 (2011 to 2070)	296	109	187	37
Seymour (Pod 2)	1 to 60 (2011 to 2070)	133	48	85	36
Seymour (Pod 3)	1 to 60 (2011 to 2070)	66	30	36	45
Seymour (Pod 4)	1 to 60 (2011 to 2070)	453	85	368	19
Seymour (Pod 6)	1 to 60 (2011 to 2070)	58	33	25	57
Seymour (Pod 8)	1 to 60 (2011 to 2070)	45	11	34	24
Seymour (Pod 11)	1 to 60 (2011 to 2070)	280	94	186	34
Blaine (North of Red River of Childress)	1 to 60 (2011 to 2070)	309	0	309	0
Blaine (South of Red River of Childress)	1 to 60 (2011 to 2070)	408	0	408	0
Blaine (Collingsworth)	1 to 60 (2011 to 2070)	930	0	930	0
Blaine (Cottle)	1 to 60 (2011 to 2070)	907	0	907	0
Blaine (Fisher)	1 to 60 (2011 to 2070)	900	0	900	0
Blaine (Foard)	1 to 60 (2011 to 2070)	706	0	706	0
Blaine (Hall)	1 to 60 (2011 to 2070)	900	0	900	0
Blaine (Hardeman)	1 to 60 (2011 to 2070)	708	0	708	0

GAM Run 19-024: Clear Fork Groundwater Conservation District Management Plan

Ki Young Cha, Ph.D.
Texas Water Development Board
Groundwater Division
Groundwater Availability Modeling Department
512-463-5604
September 6, 2019

Cynthia K. Ridgeway is the manager of the Groundwater Availability Department and is responsible for the oversight of work performed by Ki Young Cha under her direct supervision. The seal appearing on this document was authorized by Cynthia K. Ridgeway, P.G. 471 on September 6, 2019.

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GAM RUN 19-024: CLEAR FORK GROUNDWATER CONSERVATION DISTRICT MANAGEMENT PLAN

Ki Young Cha, Ph.D.
Texas Water Development Board
Groundwater Division
Groundwater Availability Modeling Department
512-463-5604
September 6, 2019

EXECUTIVE SUMMARY:

Texas State Water Code, Section 36.1071, Subsection (h) (Texas Water Code, 2011), 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 Clear Fork 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 and this information includes:

1. the annual amount of recharge from precipitation, if any, to the groundwater resources within the district;
2. for each aquifer within the district, the annual volume of water that discharges from the aquifer to springs and any surface-water bodies, including lakes, streams, and rivers; 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 Clear Fork Groundwater Conservation District should be adopted by the district on or before July 22, 2020 and submitted to the Executive Administrator of the TWDB on or before August 21, 2020. The current management plan for the Clear Fork Groundwater Conservation District expires on October 20, 2020.

We used two groundwater availability models to estimate the management plan information for the aquifers within the Clear Fork Groundwater Conservation District. Information for the Dockum Aquifer is from version 1.01 of the groundwater availability model for the High Plains Aquifer System (Deeds and Jigmond, 2015). Information for the Seymour and Blaine aquifers is from version 1.01 of the groundwater availability model for the Seymour Aquifer (Ewing and others, 2004).

This report replaces the results of GAM Run 14-007 (Wade, 2014), as the approach used for analyzing model results has been since refined and GAM Run 19-024 includes results from the groundwater availability model for the High Plains Aquifer System (Deeds and Jigmond, 2015), which was released after GAM Run 14-007. Tables 1, 2 and 3 summarize the groundwater availability model data required by statute and Figures 1, 2 and 3 show the area of the models from which the values in the tables were extracted. If, after review of the figures, the Clear Fork 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.

METHODS:

In accordance with the provisions of the Texas State Water Code, Section 36.1071, Subsection (h) (Texas Water Code, 2011), the two groundwater availability models mentioned above were used to estimate information for the Clear Fork Groundwater Conservation District management plan. Water budgets were extracted for the historical model periods for the Dockum Aquifer (1980 through 2012) and Seymour and Blaine aquifers (1980 through 1999). We used ZONEBUDGET Version 3.01 (Harbaugh, 2009) to extract water budgets from the model results. The average annual water budget values for recharge, surface-water outflow, inflow to the district, and outflow from the district for the aquifers within the district are summarized in this report.

PARAMETERS AND ASSUMPTIONS:

Dockum Aquifer

- We used version 1.01 of the groundwater availability model for the High Plains Aquifer System for this analysis. See Deeds and Jigmond (2015) for assumptions and limitations of the model.
- The model has four layers which represent the Ogallala Aquifer (Layer 1), the Edwards-Trinity (High Plains) Aquifer and the Edwards-Trinity (Plateau) Aquifer (Layer 2), the upper Dockum Aquifer (Layer 3) and the lower Dockum Aquifer (Layer 4). The Ogallala and Edward-Trinity (High Plains and Plateau) aquifers do not occur within the Clear Fork Groundwater Conservation District and the Dockum Aquifer (layers 3 and 4) are lumped for calculating water budgets within the district.
- Water budgets for the Dockum Aquifer within the district were averaged over the historical calibration period (1980 to 2012).
- The model was run with MODFLOW-NWT (Niswonger and others, 2011).

Seymour and Blaine aquifers

- We used version 1.01 of the groundwater availability model for the Seymour Aquifer for this analysis. See Ewing and others (2004) for assumptions and limitations of the groundwater availability model.
- The official boundary of the Blaine Aquifer was expanded after GAM Run 14-007 (Wade, 2014) was provided to the district; therefore, the values reported in this report are different.
- The model includes two layers which represent the Seymour Aquifer (Layer 1) and the Blaine Aquifer or various Permian units (Layer 2).
- Water budgets for the Seymour and Blaine Aquifers within the district were averaged over the historical calibration period (1980 to 1999).
- The model was run with MODFLOW-2000 (Harbaugh and others, 2000).

RESULTS:

A groundwater budget summarizes the amount of water entering and leaving the aquifers according to the groundwater availability model. Selected groundwater budget

components listed below were extracted from the groundwater availability model results for the Dockum, Seymour and Blaine aquifers located within Clear Fork Groundwater Conservation District and averaged over the historical calibration periods, as shown in Tables 1 through 3.

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 Tables 1 through 3. 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 DOCKUM AQUIFER FOR CLEAR FORK GROUNDWATER CONSERVATION DISTRICT'S 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	Result
Estimated annual amount of recharge from precipitation to the district	Dockum Aquifer	735
Estimated annual volume of water that discharges from the aquifer to springs and any surface water body including lakes, streams, and rivers	Dockum Aquifer	762
Estimated annual volume of flow into the district within each aquifer in the district	Dockum Aquifer	145
Estimated annual volume of flow out of the district within each aquifer in the district	Dockum Aquifer	9
Estimated net annual volume of flow between each aquifer in the district	From overlying units to Dockum Aquifer	115

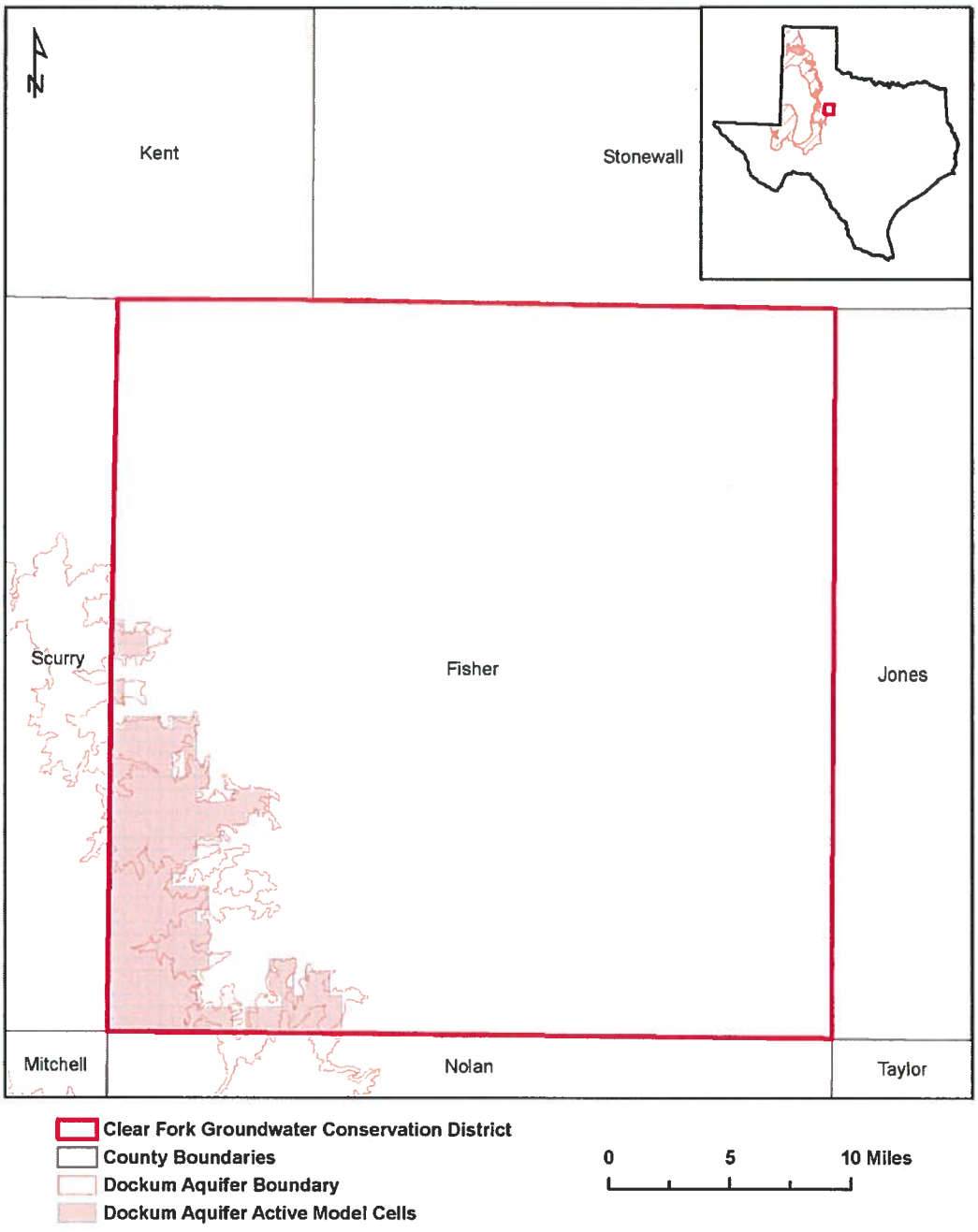

FIGURE 1: AREA OF THE HIGH PLAINS AQUIFER SYSTEM GROUNDWATER AVAILABILITY MODEL FROM WHICH THE DOCKUM AQUIFER INFORMATION IN TABLE 1 WAS EXTRACTED (THE DOCKUM AQUIFER EXTENT WITHIN THE DISTRICT BOUNDARY)

TABLE 2. SUMMARIZED INFORMATION FOR THE SEYMOUR AQUIFER FOR CLEAR FORK GROUNDWATER CONSERVATION DISTRICT'S 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	Result
Estimated annual amount of recharge from precipitation to the district	Seymour Aquifer	12,261
Estimated annual volume of water that discharges from the aquifer to springs and any surface water body including lakes, streams, and rivers	Seymour Aquifer	3,011
Estimated annual volume of flow into the district within each aquifer in the district	Seymour Aquifer	0
Estimated annual volume of flow out of the district within each aquifer in the district	Seymour Aquifer	459
Estimated net annual volume of flow between each aquifer in the district	From underlying Permian units to Seymour Aquifer	436

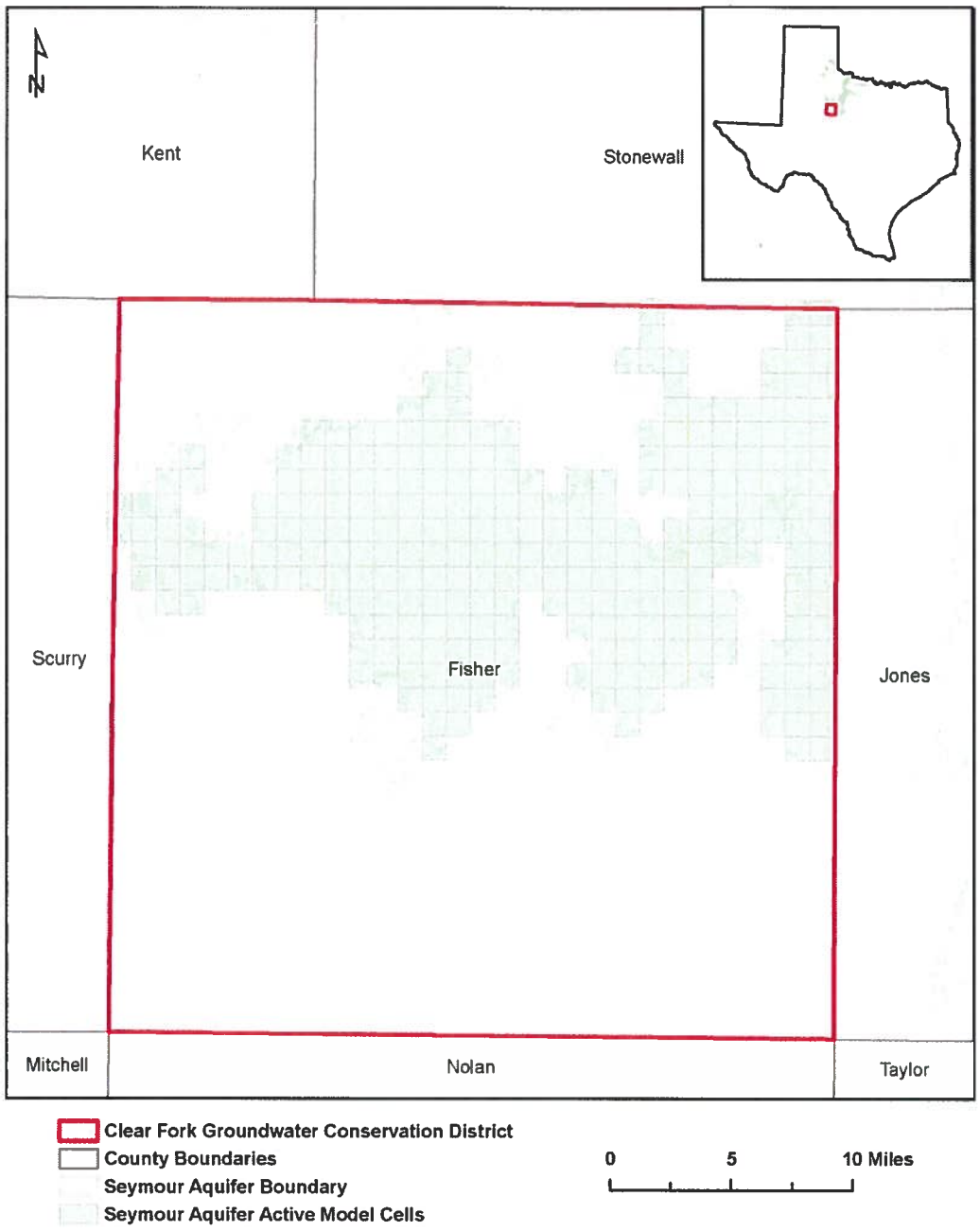

FIGURE 2: AREA OF THE SEYMOUR AQUIFER GROUNDWATER AVAILABILITY MODEL FROM WHICH THE SEYMOUR AQUIFER INFORMATION IN TABLE 2 WAS EXTRACTED (THE SEYMOUR AQUIFER EXTENT WITHIN THE DISTRICT BOUNDARY)

TABLE 3. SUMMARIZED INFORMATION FOR THE BLAINE AQUIFER FOR CLEAR FORK GROUNDWATER CONSERVATION DISTRICT'S 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	Result
Estimated annual amount of recharge from precipitation to the district	Blaine Aquifer	12,307
Estimated annual volume of water that discharges from the aquifer to springs and any surface water body including lakes, streams, and rivers	Blaine Aquifer	3,299
Estimated annual volume of flow into the district within each aquifer in the district	Blaine Aquifer	592
Estimated annual volume of flow out of the district within each aquifer in the district	Blaine Aquifer	3,349
Estimated net annual volume of flow between each aquifer in the district	From Blaine Aquifer to overlying Seymour Aquifer	1,266
	From other Permian units to Blaine Aquifer	3,202

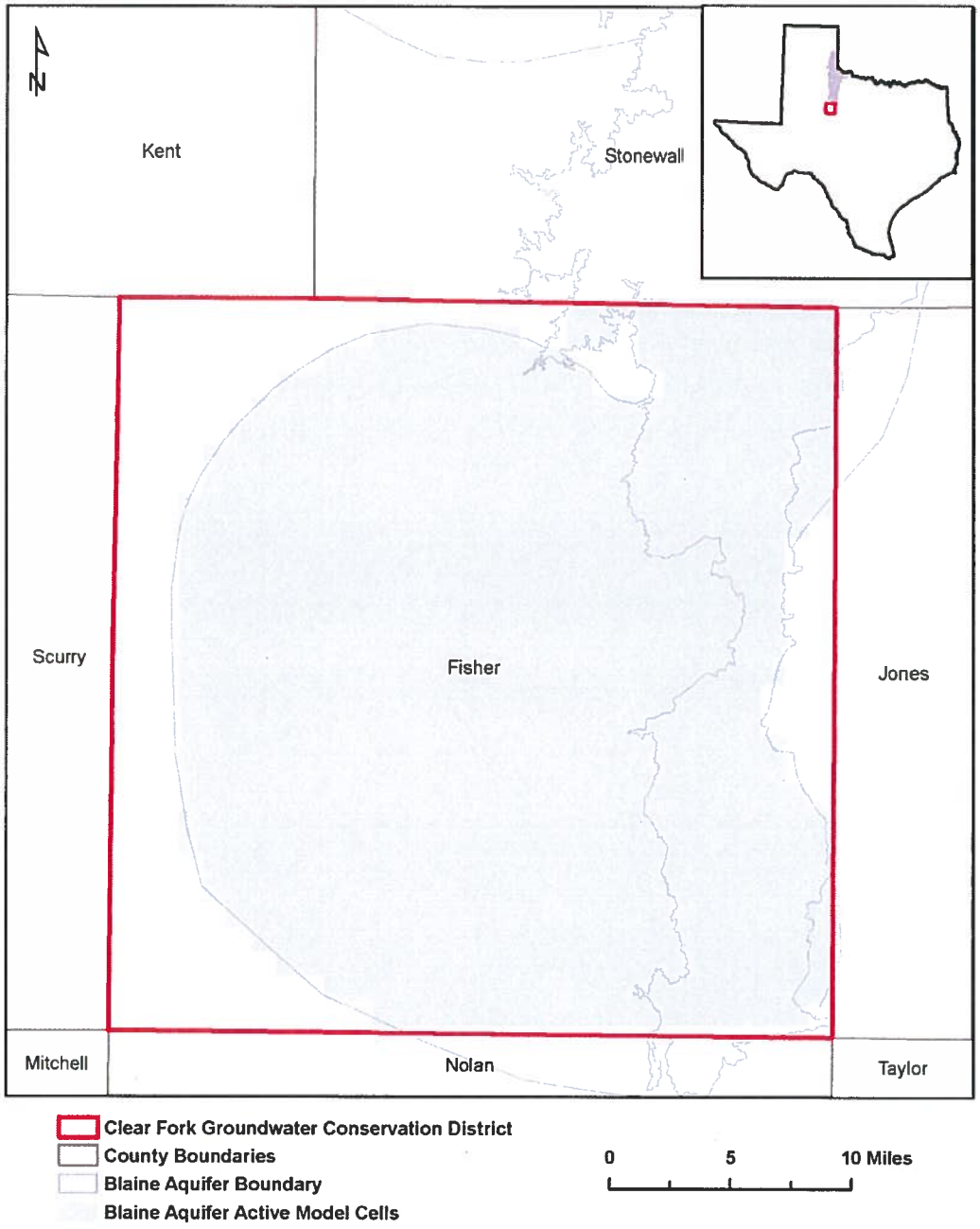

FIGURE 3: AREA OF THE SEYMOUR AQUIFER GROUNDWATER AVAILABILITY MODEL FROM WHICH THE BLAINE AQUIFER INFORMATION IN TABLE 3 WAS EXTRACTED (THE BLAINE AQUIFER EXTENT WITHIN THE DISTRICT BOUNDARY)

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 historical groundwater flow conditions includes the assumptions about the location in the aquifer where historical 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 historical 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. Historical 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:

Deeds, N.E., and Jigmond, M., 2015, Numerical model report for the High Plains Aquifer System groundwater availability model, 640 p., http://www.twdb.texas.gov/groundwater/models/gam/hpas/HPAS_GAM_Numerical_Report.pdf.

Ewing, J.E., Jones, T.L., Pickens, J.F., Chastaun-Howley, A., Dean, K.E., and Spear, A.A., 2004, Groundwater availability model for the Seymour Aquifer: Final report prepared for the Texas Water Development Board by INTERA, Inc., 533p., http://www.twdb.texas.gov/groundwater/models/gam/symr/SYMR_Model_Report.pdf.

Harbaugh, A. W., Banta, E. R., Hill, M. C., and McDonald, M. G., 2000, MODFLOW-2000, the U.S. Geological Survey modular ground-water model -- User guide to modularization concepts and the Ground-Water Flow Process: U.S. Geological Survey Open-File Report 00-92, 121 p.

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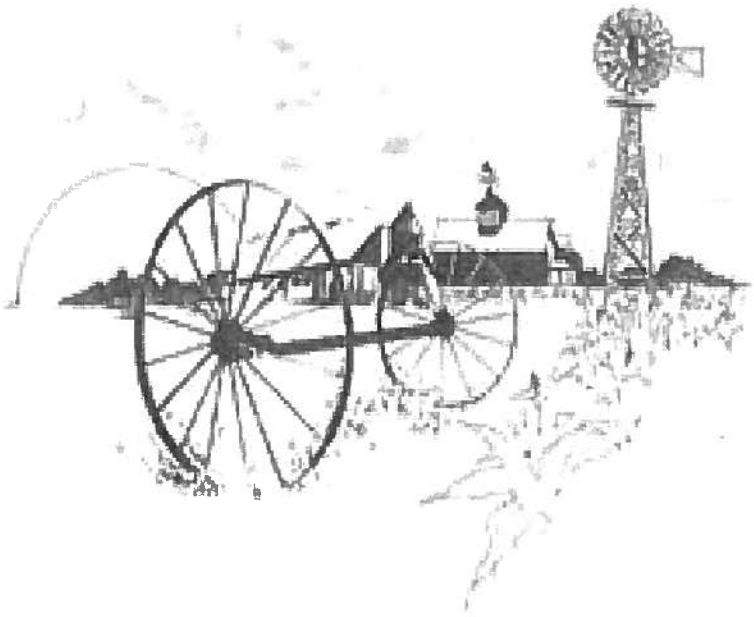
National Research Council, 2007, Models in Environmental Regulatory Decision Making Committee on Models in the Regulatory Decision Process, National Academies Press, Washington D.C., 287 p., http://www.nap.edu/catalog.php?record_id=11972.

Niswonger, R.G., Panday, S., and Ibaraki, M., 2011, MODFLOW-NWT, a Newton formulation for MODFLOW-2005: United States Geological Survey, Techniques and Methods 6-A37, 44 p.

Texas Water Code, 2011, http://www.statutes.legis.state.tx.us/docs/WA/pdf/WA.36.pdf.

Wade, S.C., 2014, GAM Run 14-007: Clear Fork Groundwater Conservation District Management Plan, 12p., http://www.twdb.texas.gov/groundwater/docs/GAMruns/GR14-007.pdf

Rules of Clear Fork Groundwater Conservation District Effective November 30, 2017.



Originally Adopted: November 3, 2003
Amended:
February 2, 2004;
April 22, 2004;
April 2, 2013; and,
November 30, 2017.

Mission Statement:

To establish and protect Groundwater Rights of landowners, and preserve this resource for generations to come.

TABLE OF CONTENTS

PREAMBLE

The purpose of this District is to provide for the Conservation, preservation, protection, recharging, and prevention of waste of the Groundwater resources of the District. To carry out this purpose, these Rules and regulations are adopted and will be enforced to minimize as far as practicable: drawdown of the Water table, depletion of Groundwater Aquifers, interference between Wells, reduction of artesian pressure; and to prevent waste of Groundwater, Pollution or harmful alteration of the character of the Groundwater; and to promote Conservation to extend the longevity of the Groundwater resource and to manage Groundwater effectively based upon ecological and socio-economic systems unique to the Clear Fork Groundwater Conservation District.

DISTRICT HISTORY, AUTHORITY AND STRUCTURE

Creation and General Description

The District was originally created as the Clear Fork Groundwater Conservation District by the 77th Legislature of the State of Texas in 2001 (Enabling Legislation HB 3674) and was confirmed by the citizens of Fisher County through election in 2002. Taxing authority was confirmed by a local election in 2003. The Clear Fork Groundwater Conservation District (CFGCD) encompasses all of Fisher County. The District has an economy dominated by agricultural production. About 50.8 percent of the District is rangeland, 42.5 percent is cropland and the rest is municipal, transportation, or Water areas. Recreational hunting leases and production of petroleum also contribute to the economy of the District. According to current District records, there are approximately 175 active Irrigation Wells in the District. The District has several Municipal or public supply Wells. The remaining Wells are non-permitted Water supplies for domestic and livestock consumption.

Location and Extent

Clear Fork Groundwater Conservation District has an area of approximately 902 square miles, or approximately 578,000 acres, and encompasses all of Fisher County of the State of Texas. The District is bounded on the east by Jones County; on the north by Kent and Stonewall Counties; on the west by Scurry County; on the Southwest by Mitchell county; on the Southeast by Taylor County; and on the south by Nolan County. The principal towns within the District are Roby (the county seat) and Rotan.

Board of Directors

Purpose of Board of Directors: The Board of Directors is the governing body of the District. The Board of Directors shall establish policies and adopt rules that regulate the withdrawal of Groundwater within the boundaries of the District for the purpose of conserving, preserving, protecting and recharging the Groundwater within the District. The Board of Directors will exercise its rights, powers, and duties to effectively and expeditiously accomplish the purposes of the District. The Board's responsibilities include, but are not limited to, the adoption and enforcement of reasonable rules and other orders.

Board Structure, Officers: The Board consists of members elected and qualified in accordance with the Enabling Act of the District and Chapter 36 of the Water Code and the Election Code. Each even numbered Year at its regular December meeting, (if there is no December meeting, at its next regular meeting) the Board will elect one of its members to serve as President, to preside over Board meetings and proceedings; one to serve as Vice-President to preside in the absence of the President; and one to serve as Secretary to assure that a true and complete record of all meetings and proceedings of the Board are recorded and to attest on behalf of the District. Members and officers serve until their successors are elected or appointed and sworn.

Meetings: The Board will hold regular meetings in accordance with Chapter 36 of the Water Code. At the call of the President, or by written request of at least three members of the Board, special meetings may be held. All Board meetings will be held according to the Texas Open Meetings Act.

District Staff

General Manager: The District employs a General Manager to manage the administrative affairs of the District. In the absence of the Secretary of the Board, the General Manager of the District may also act as Secretary to the Board and may attest on behalf of the District. The General Manager is responsible for ensuring that the Rules, regulations, policies, and procedures adopted by the Board are implemented. The General Manager shall provide timely reports about the administrative affairs of the District to the Board. The Board determines the salary and reviews the position of General Manager each Year.

The General Manager, with approval of the Board, may employ all Persons necessary to assist in the duties required for the proper administration of the District. The Board sets District staff salaries after considering the recommendations of the General Manager.

CHAPTER 1
GENERAL PROVISIONS AND DISTRICT JURISDICTION

13.41 **General Jurisdiction of the District:** The Clear Fork Groundwater Conservation District is a political subdivision of the State of Texas organized and existing under § 59, Article XVI, Texas Constitution, Texas Water Code, and the District's Enabling Legislation.

13.41 **District Business Office, Mailing Address, and Phone Number:** The business office and mailing address of the District are as follows:

A. Business Office: 601 West 1st Street, Roby, Texas 79543;

B. Mailing Address: P.O. Box 369, Roby, Texas 79543;

C. Phone Number: (325) 776-2730; and

D. Email: clearforkgcd@gmail.com

13.41 **Purpose of the Rules:** These Rules are adopted under the authority of § 36.101, Texas Water Code, for the purpose of conserving, preserving, protecting and recharging Groundwater in the District; and to prevent degradation of Water quality; prevent waste of Groundwater; achieve the Desired Future Conditions set by the District; and to implement § 59, Article XVI, Texas Constitution; the Texas Water Code; and the District's Enabling Legislation. The Rules of the District may be amended from time to time to comply with the District's Management Plan and any revisions to the Texas Water Code by the Texas legislature. The Rules may also be amended because of a change in the condition or use of the aquifers.

13.41 **Construction of the Rules:** The Board of Directors shall have the discretionary authority to construct, interpret and apply these Rules. Unless otherwise expressly provided for in these Rules, the past, present and future tense shall each include the other; the masculine, feminine and neutral gender shall each include the other, and the singular and plural number shall each include the other.

13.41 **General Requirements for Applications, Registrations, Reports and Matters before the Board:** The Applicant shall provide on a form authorized by the District for all Applications, registrations, Reports and matters before the Board the following information:

A. Full name, address, telephone number and e-mail address of the Groundwater right Owner;

B. The name and mailing address of the Applicant. If the Applicant is not the Groundwater right Owner, the Applicant must furnish satisfactory documentation authorizing the Applicant to file an Application, registration or request a matter be placed before the Board on behalf of the Groundwater right Owner; and

C. The document must be certified as true and correct by the responsible party or authorized representative.

1.6 Application Null and Void: An Application is null and void if the District does not receive the required deposit(s), any applicable fee(s) and all the information required to be furnished by the Applicant within seven (7) business days from the date filed in the District office.

1.7 Enforcement of Rules: All Rules duly adopted, promulgated and published by this District shall be enforced as provided under the Texas Water Code and other applicable Texas law as now, or hereafter amended.

1.8 Authority to Enter Land:

A. Chapter 36 of the Texas Water Code grants the District the authority to enter real Property at reasonable times for the purpose of inspecting and investigating conditions relating to compliance with any Rule, regulation, permit, or other Order of the District including, but no limited to:

1. Inspecting a proposed Well site, and any existing Well or Wells;

2. Determining the pumping capacity of any Well or Wells;

3. Reading or interpreting any meter, wire box or other instrument used to measure production of Water from any Well or Wells;

4. Collecting samples to be used in Groundwater quality programs;

5. Testing the pump and the power unit, or the pumping capacity, of any Well or Wells;

6. Inspecting real Property for sources of potential or actual Pollution;

7. Performing any other reasonable and necessary inspections and/or tests that may be required to collect Groundwater information; and,

8. Enforcing the Rules of the District.

B. Employees or agents of the District acting under this authority who need to enter "restricted access" to real Property or structures shall observe the Owner's rules and regulations concerning safety, biological security, internal security, and fire protection, and shall notify any occupant or other Person having apparent legal authority of their presence.

C. An Application for a permit may be suspended or canceled by the Board if the Applicant refuses to grant the District's employees access to real Property to gather information necessary to complete the Application.

D. The operation of any Well may be enjoined by the District immediately upon refusal to grant the District's employees access to real Property as provided above.

E. District employees or agents of the District entering real Property pursuant to this Rule shall exhibit proper identification upon request.

1.9 Fraudulent Acts: It shall be a fraud upon the District and the public and a violation of these Rules for any Person to willfully submit false information concerning Applications, registrations, reports and other matters before the District, or to willfully bypass, disable, tamper with or otherwise prevent a meter or metering system from accurately measuring and/or recording the volume of Groundwater produced.

CHAPTER 2
CONCEPTS AND PROCEDURES

2.1 Use and Effect of Rules: The District will use these Rules in the exercise of the powers conferred by the Enabling Legislation of the District and Chapter 36 in the accomplishment of the purposes of the District. The Rules may not be construed as a limitation or restriction on the exercise of any discretion; nor to deprive the District or Board of the exercise of any powers, duties, or jurisdiction conferred by law; nor to limit or restrict the amount and character of data or information which may be required to be collected for the proper administration of the District.

2.2 Dispute Resolution Policy: It is the policy of the District to encourage the peaceful resolution of disputes. Therefore, prior to proceeding under the "Contested Matters" provisions of these Rules, the Board of Directors and the General Manager will endeavor to resolve all disputes through informal negotiations.

2.3 Amending Rules: The Board may, following notice and hearing, amend these Rules, or adopt new rules at the discretion of the Board.

2.4 Construction: A reference to a title, chapter or section without further identification is a reference to a title, chapter or section of the Water Code. Construction of words and phrases are governed by the Code Construction Act, Subchapter B, Chapter 311 of the Government Code.

2.5 Severability: If any one or more of the provisions contained in these Rules are for any reason held to be invalid, illegal, or unenforceable in any respect, the invalidity, illegality, or unenforceability may not affect any other Rule or provision of these Rules, and these Rules must be construed as if such invalid, illegal or unenforceable Rule or provision had never been contained in these Rules.

CHAPTER 3
GENERAL DRILLING AND REGISTRATION REQUIREMENTS ON ALL WELLS AND PRODUCTION LIMITS ON NON-EXEMPT WELLS

3.1 General: Drilling Application for, and/or Registration of, all Wells are required by these Rules.

3.2 Application:

A. For all proposed new Wells, the Owner of the proposed new Well, or the Well operator, or any other Person acting on behalf of the Owner (collectively, the Applicant), of the proposed new Well must first file an Application to Drill a new Well ("Application").

B. If the proposed new Well is to be exempt under these Rules, the Application must state the basis for the exemption, which exemption must be approved by the District.

C. Within 5 (five) calendar days from receipt of an Application, the District's General Manager shall determine whether the Well is exempt, or non-exempt and return a copy of the completed Application to the Applicant.

D. If the District Manager approves the Application, drilling may begin immediately. (The Board shall review all Applications at its next Board meeting.)

E. Upon completion of a new Well, the Well logs shall be filed with the District within sixty (60) days after the completion of the Well. Upon filing of the logs, an exempt Well shall be considered registered with the District and a Registration Certificate will then be issued by the District to the Applicant. Further, the Applicant for a non-exempt Well will then be issued a Well Permit if the non-exempt Well is in compliance with these Rules.

3.3 Non-exempt Well: If the proposed Well is non-exempt, the District will verify that the Well location meets District spacing rules prior to issuing the Well Permit.

3.4 Maximum Allowable Production: The maximum allowable Annual production amount shall be three (3) Acre-feet of Groundwater per contiguous surface acre owned, leased or from which there is otherwise authorization for the Well Permit holder to withdraw Groundwater.

3.5 Exceeding Maximum Allowable Production: If the District has reasonable cause to believe that Rule 3.4 is being violated by a Well Owner/Operator exceeding three (3) Acre-feet per Contiguous Acre owned in a calendar Year, the District may enter a Show Cause Order pursuant to these Rules, and thereby give the apparent violator the opportunity to prove no violation of Rule 3.4.

3.6 Re-Application: If the Owner or operator of a Registered Well plans to change the type of use of the Groundwater, increase the withdrawal rate, or substantially alter the size of the Well or Well pump, the proposed changes shall be submitted to the District on a new Application.

3.7 Test or Exploratory Wells: Prior to drilling test or exploratory Wells, the Owner or operator shall notify the District and obtain a certificate of testing/exploration (see Test or Exploratory Hole Definition, Rule 13.38).

CHAPTER 4
EXEMPT WELLS

4.1 Exempt Wells: The following Wells are classified as exempt Wells:

A. A Well used solely for domestic use, or for providing Water for livestock or poultry, if the Well is located, or to be located on a tract of land larger than 10 acres and drilled, completed, or equipped so that it is incapable of producing more than 25,000 gallons of Groundwater a day;

B. A Water Well 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 provided that the Person holding the permit is responsible for drilling and operating the Water Well and the Water Well is located on the same lease or field associated with the drilling rig; or

C. 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 "Confined Animal Feeding Operation" or "Concentrated Animal Feeding Operation" ("CAFO") set forth in the District's definitions.

D. Well spacing requirements apply to all exempt Wells, except a Well exempted under Rule 4.1.B.

E. A Water Well exempted under this Rule shall:

1. be registered with the District; and

2. be equipped and maintained so as to conform to the District's Rules regarding Well construction.

F. The driller of a Well exempt under this Rule must file the drilling log with the District within 60 days after Well completion.

G. A Well to supply Water for a subdivision of land for which a plat approval is required by Chapter 232, Local Government Code, is not exempted under this Chapter.

H. Groundwater withdrawn from a Well exempt under this Rule and subsequently transported outside the boundaries of the District is subject to any applicable production and Export fees under Rule 9.8 hereof.

CHAPTER 5
WELL SPACING AND PRODUCTION REQUIREMENTS

5.1 Spacing and Location of Existing Wells: Wells drilled prior to January 1, 2003, are not subject to the spacing requirements of this Rule except that these existing Wells shall have been drilled in accordance with state law in effect, if any, on the date such drilling commenced.

5.2 Well Spacing Rules: In order to prevent waste and ensure the Beneficial Use of Groundwater, the District determines that, Wells should be spaced as follows.

Maximum Production Rate (gpm)	Well Spacing (feet between Wells)
Below: 25	No requirement
25-175	350
175-300	500
300-above	750

5.3 Setback: No Well shall be drilled closer than 50 ft. to a Property Line, with the exception for Wells drilled with-in Municipal Boundaries and follow Section 76.100 of the Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers Administrative Rules. If adjoining property has a Well at 50', Wells shall be a minimum of 100' apart, unless the production of Wells would require increased spacing requirements to be followed.

5.4 Waiver for Neighboring Well Spacing: An exception to Property Line spacing rule may be granted if the neighboring property Owner files a waiver granting the drilling of a Well in violation of the spacing limits. A waiver must be obtained from the District and signed (and sworn to before a Notary Public) by the neighboring property Owner.

5.5 Location of Well: After the Application has been granted, the Well, if drilled, must be drilled within the tract of land specified on the Application, and not elsewhere. If the Well is not drilled on the tract of land specified in

the Application, it will be an Illegal Well. The District may enjoin the drilling or operation of an Illegal Well and/or assess civil penalties as provided in these Rules.

CHAPTER 6
REQUIREMENTS FOR DRILLING, COMPLETING AND EQUIPPING WELLS

6.1 Drilling/Completing and Equipping Wells:

A. All Wells shall be completed, equipped and maintained in such a manner as to protect human life and prevent Pollution.

B. Complete records shall be kept and filed with the District as provided in these Rules. Such records shall be filed with the District on forms prescribed by the District within sixty (60) days after completion of the Well.

C. No Person shall drill, complete, or equip a Well without having a current Texas Water Well Driller's license, Texas Pump Installer's license, and without complying with the Rules and Regulations of the District, state or federal agencies or political subdivisions having jurisdiction, which Rules and Regulations are all incorporated herein by reference. Provided, however, this Rule 6.1.C does not require a Well Owner or operator to have a Texas Water Well Driller's license or a Texas Pump Installer's license to service or repair that Owner's or operator's Well or Well equipment.

6.2 Registration of Water Well Drillers:

A. It is a violation of District rules for any Person to be actively engaged in the commercial drilling of a Well in the District without first registering with the District.

B. Only persons who are licensed Water Well drillers, in good standing with the Texas Department of Licensing and Regulation and whose license validity is verified with the District are authorized to drill Water Wells within the District.

C. Registration shall be on forms provided by the District.

6.3 Registration of Water Well Pump Installers:

A. It is a violation of District rules for any Person to be actively engaged in the commercial installation of a Water Well pump in the District without first registering with the District.

B. Only persons who are licensed Water Well pump installers, in good standing with the Texas Department of Licensing and Regulation and whose license validity is verified with the District are authorized to commercially install Water Well pumps within the District.

C. Registration shall be on forms provided by the District.

CHAPTER 7
REWORKING AND REDRILLING A WELL

7.1 Reworking and Redrilling:

A. Re-drilling a non-exempt Well requires filing a Drilling Application under Chapter 3 of these Rules.

B. A Well re-drilled under this Rule shall typically be located within 30 feet of the originally approved Well, as long as requirements under Chapter 5 of these Rules are satisfied. Provided, however, the Board shall have discretion to authorize a Well to be redrilled under this Rule up to 150 feet from the original location upon good cause if the spacing requirements under Chapter 5 of these Rules are satisfied.

CHAPTER 8
DEPOSITS AND FEES

8.1 **Well and Export Permits:**

A. Each Drilling Application for a Well shall be accompanied by a deposit and a non-refundable administrative fee. The deposit may be refunded to the Applicant by the District if:

1. The Application is denied;

2. The Application is granted, upon delivery to the District of all information required under Chapter 3 hereof;

3. If no Well is drilled and the Applicant requests cancellation of the Application; or,

4. If the proposed Export Facility is abandoned and the Applicant requests cancellation of the Export Permit.

B. If the Applicant does not submit all information required by these Rules to the District within sixty (60) days after the completion of the Well, any deposit required by these Rules shall be forfeited.

Setting Amount of Deposits and Fees

8.2 **Deposits and Administrative Fees:** The District may charge fees for Applications and Well Permits. The Board shall set the amount of such fees. The Board may adopt a fee schedule which sets the amount of fees to be charged for any services provided by the District.

8.3 **Administrative Services:** Administrative services include, but are not limited to: providing copies of documents, reports, records, and minutes or other information of the District, and for formal notices, including certain publication costs, for publications required under Chapter 11 hereof.

8.4 **Field Services:** The District will not provide field services to Well Owners or operators of Wells within the District if the Wells are not in compliance

with District Rules. Field services include, but are not limited to: water level measurements, basic water quality analysis, and locating GPS coordinates.

8.5 **Amendment to Deposit and Fees:** Upon giving proper public notice, the Board may change the amount of deposits, administrative fees and field service fees.

8.6 **Export Fees:** See Rule 9.3.

CHAPTER 9
EXPORT

Export of Water from the District

9.1 **Export Production Permit:** An Applicant shall provide the information required by Chapter 3 hereof to receive an Export Production Permit.

9.2 **Texas Water Code Section 36.122:** In addition, for an Application for an Export Production Permit, the District may request any and all information and/or documentation authorized by Texas Water Code Section 36.122.

9.3 **Export Fees:** A fee shall be charged for Water produced within the District and Exported to an area outside of the boundaries of the District. The Annual fee shall be:

A. a rate equivalent to the District's tax rate per hundred dollars of valuation multiplied by each thousand gallons of Water Exported out of the District. The rate will be adjusted each Year based on the adopted tax rate of the District for the previous Year.

B. The fee will be calculated using the sum of the production amount from the meters located on each Well.

C. The fee may be paid on a monthly or an Annual basis as determined by the Board.

CHAPTER 10
WATER QUALITY AND WASTE

Pollution of Groundwater

10.1 The District is aware that at times there are activities and/or conditions which could cause significant Pollution or harmful alteration of the Groundwater. The District recognizes and supports the state of Texas and the federal government regulatory agencies which protect the Groundwater and surface Water from both point source and non-point source Pollution. These agencies include, but are not limited to, Groundwater Conservation Districts, the Texas Commission on Environmental Quality, Texas Department of Agriculture, Texas State Soil and Water Conservation Board, Railroad Commission of Texas, and the United States Environmental Protection Agency.

Covering and Abandonment of Wells

10.2 Every Owner or operator of any real Property within the District, upon which any open or uncovered Well is located shall be required to close or cap the same permanently or temporarily as set forth below and in accordance with Chapter 36 of the Texas Water Code as now, or hereafter amended.

A. As used in this section, ("open or uncovered Well") means an artificial excavation that is dug or drilled for the purpose of exploring for or producing Water from the Underground Water reservoir and is not capped or covered as required.

B. The District may require the Owner or lessee of real Property on which an open or uncovered Well is located to keep the Well permanently closed or capped with a covering capable of sustaining weight of at least 400 pounds, except when the Well is in actual use.

C. If the Owner or lessee fails or refuses to close or cap the Well in compliance with this Rule within 10 days after being notified to do so in writing by an officer, agent, or employee of the District, then any Person, firm, or corporation employed by, or authorized agent of, the District may go on the real Property and close or cap the Well.

D. Any expense incurred by the District in closing or capping a Well shall constitute a lien on the real Property on which the Well is located.

E. The lien is perfected by filing an affidavit in the deed records of the county where the Well is located, executed by any Person conversant with the facts, stating the following:

1. the existence of the Well;

2. the legal description of the Property on which the Well is located;

3. the approximate location of the Well on the Property;

4. the failure or refusal of the Owner or lessee, after notification, to close the Well within 10 days after the notification;

5. the closing of the Well by the District, or by an authorized agent, representative, or employee of the District; and,

6. the expense incurred by the District in closing the Well.

10.3 A Well may be abandoned by the District, after proper notification to the Well Owner, if the Well is not brought into compliance with the applicable District Rules.

A. For a Well to be considered by the Board for "Abandonment" one or more of the following conditions must exist:

1. the physical condition of the Well is causing, or is likely to cause, Pollution of the Groundwater in the District; or

2. the Well is not in use and does not contain any pumping equipment and has not been in use for ten (10) or more Years and the real Property is not, or has not been, enrolled in any state or federal Conservation program such as the Conservation Reserve Program (CRP); or

3. the Well is in use and does contain pumping equipment but the physical condition of the Well is not in compliance with applicable law, including the Rules of the District, and Chapter 1901 of the Texas Occupations Code.

B. When the General Manager of the District is informed that a Well should be considered for Abandonment, the General Manager shall notify the Owner of the Well of the condition of the Well. The notification to the Owner shall include:

1. the conditions under which the Well may be considered for abandonment through action of the Board,

2. any corrective action the Well Owner may take to prevent the Well abandonment, and,

3. the date, time and location of the meeting at which the Board will consider the abandonment of the Well.

10.4 Nothing in this Rule affects the enforcement of Subchapter A, Chapter 756, Sections 756.001 and 756.002 of the Texas Health and Safety Code, regarding the covering and plugging of Wells.

Waste

10.5 Water shall not be produced or used within the District in such a manner or under such conditions as to constitute Waste. Water shall not be produced from an abandoned or Deteriorated Well. "Waste" means any one or more of the following:

A. withdrawal of Groundwater from a Groundwater Reservoir at a rate and in an amount that causes or threatens to cause intrusion into the reservoir of Water unsuitable for agricultural, gardening, domestic, or stock-raising purposes;

B. the flowing or producing of Wells from a Groundwater Reservoir if the Water produced is not used for a beneficial purpose;

C. escape of Groundwater from a Groundwater Reservoir to any other reservoir or geologic strata that does not contain Groundwater;

D. Pollution or harmful alteration of Groundwater in a Groundwater Reservoir by saltwater or by other deleterious matter admitted from another stratum or from the surface of the ground;

E. willfully or negligently causing, suffering, or allowing Groundwater to escape into any river, creek, natural watercourse, depression, lake, reservoir, drain, sewer, street, highway, road, or road ditch, or onto any land other than that of the Owner of the Well unless such discharge is authorized by permit, Rule, or order issued by the Texas Commission on Environmental Quality (TCEQ) under Chapter 26 of the Water Code;

F. Groundwater pumped for irrigation that escapes as irrigation tailwater onto land other than land of the Owner of the Well unless permission has been granted by the occupant of the land receiving the discharge; and,

G. for Water produced from an artesian Well, "waste" has the meaning assigned by § 11.205 of the Water Code; or,

H. an unaccounted loss of Water in excess of ten percent (10%) between the volume of Water entering a distribution or conveyance system and the amount of Water discharged at the termination point of the system.

10.6 Waste of Groundwater shall be a violation of these Rules and the violation will be subject to injunction and/or civil penalties as provided herein.

10.7 A Well identified as an abandoned or Deteriorated Well, or a borehole, must be plugged, capped or re-completed in accordance with the requirements of the District and any statewide law, agency or political subdivision having jurisdiction including, but not limited to, Chapter 1901 of the Texas Occupations Code, and the Texas Commission on Environmental Quality.

CHAPTER 11
HEARING PROCEDURES

Commentary to Chapter 11

The District conducts four general types of hearings: hearings on Applications for exception to the District's Rules; hearings involving contested matters in which the rights, duties, or privileges of a Person are determined after an opportunity for an adjudicative hearing; rulemaking hearings involving matters of general applicability that implement, interpret, or prescribe the law, or that describe the procedure or practice requirements of the District; and show cause hearings which are held pursuant to a Show Cause Order for a Person to appear before the Board and Show Cause why such Person's operating authority or permit should not be suspended, canceled or otherwise restricted and limited, and/or why such Person should not be subject to an injunction or civil penalties as set forth in these Rules for failure to comply with the Rules, Orders or regulations of the Board or the relevant statutes of the State of Texas.

11.1. General Procedures for all District Hearings:

A. Hearing Registration: Each Person who attends a hearing shall submit a hearing registration form stating:

1. the Person's name;

2. the Person's address;

3. whom the Person represents, if the Person is not there in the Person's individual capacity; and,

4. whether the Person wishes to testify.

B. **Conduct and Decorum:** Every Person participating in or observing a meeting of the Board of Directors, a hearing, or other associated proceeding, must conform to ethical standards of conduct and exhibit courtesy and respect for all other participants or observers. 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.

C. **Continuances:** The presiding officer may continue hearings from time to time and from place to place without the necessity of publishing, serving, mailing or otherwise issuing any new notices. If a hearing or other proceeding is continued and a time and place for the hearing to reconvene are not publicly announced at the hearing by the presiding officer before it is recessed, a notice of any further setting of the hearing or other proceeding must be served at a reasonable time to all parties and any other Person the presiding officer deems appropriate. It is not necessary to post notice of the new setting at the county courthouses or to publish such notice in a newspaper.

D. **Alignment of Parties; Number of Representatives Heard:** Participants in a proceeding may be aligned according to the nature of the proceeding and their relationship to it. The presiding officer may require the participants of an aligned class to select one or more Persons to represent them in the proceeding, or on any particular matter or ruling, and may limit the number of representatives heard, but must allow at least one representative of an aligned class to be heard in the proceeding, or on any particular matter or ruling.

E. **Appearance:** The Applicant, protestant, or any party requesting the hearing, or a representative, should be present at the hearing. Failure to appear may be grounds for withholding consideration of a matter and dismissal without prejudice, or may require the rescheduling or continuance of the hearing, if the presiding officer deems it necessary in order to fully develop the record.

F. **Filing of Documents; Time Limit:** Applications, motions, exceptions, communications, requests, briefs, or other papers and documents required to be filed under these Rules, or by law, must be received in hand at the District's office within the time limit, if any, set

by these Rules, or by the presiding officer for filing. Mailing within the time period is insufficient, if the submissions are not actually received by the District within the time limit.

G. **Broadening the Issues:** No Person will be allowed to appear in any hearing or other proceeding that, 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 to matters that are not material or relevant to the matter that is the subject of the hearing.

H. **Changed Conditions:** The decision of the Board on any matter contained herein may be reconsidered by it on its own motion or upon motion showing changed conditions, or upon the discovery of new or different conditions or facts after the hearing or decision on such matter. If the Board should decide to reconsider a matter after having announced a ruling or decision, or after having finally granted or denied the Application, it shall give notice to Persons who were proper parties to the original action, and such Persons shall be entitled to a hearing thereon if they file a request therefor within fifteen (15) days from the date of the mailing of such notice.

I. **Methods of Service Under the Rules:** Except as otherwise expressly provided in these Rules, any notice or documents 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 mail sent to the recipient's last known address, or by facsimile ("fax") document transfer to the recipient's current fax number. Service by mail is complete upon deposit in a post office or other official depository of the United States Postal Service. Service by fax is complete upon transfer, except that any transfer occurring after 5:00 p.m. will be deemed complete on 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 time after service, three days will be added to the prescribed period. Where service by one or more methods has been attempted and failed, the service is complete upon publication of notice in a newspaper having general circulation in the District.

J. **Computing Time:** In computing any period of time prescribed or allowed by these Rules, by Order of the Board, or by any applicable statute, the day of the act, or event of default from which the designated period of time begins to run, is not to be included, but the last day of the period so computed is to be 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, nor a legal holiday.

11.2. **Exception to the Rules:**

A. Any Applicant desiring an exception to any Rule shall file a signed and verified written Application with the District at its principal office stating:

1. the nature of the exception requested;

2. the Rule number(s) and Paragraph(s) or sub-paragraph(s);

3. the justification for granting the exception;

4. any information that the Applicant deems appropriate in support of the Application; and

5. Cash deposit of funds sufficient to pay costs to be incurred by the District in processing the exception request. Any unused funds so deposited will be refunded to the Applicant at the conclusion of the hearing.

B. Any Application for exception must be in writing and one original of the written Application for an exception shall be submitted with any required filing fee to the District at its principal office.

C. All Applications for exceptions shall be heard and considered by the Board at a Board meeting, within sixty (60) days after submittal. At least ten (10) days prior to the hearing, the General Manager shall:

1. post the notice in a place readily accessible to the public in the principal office of the District;

2. provide the notice to the county clerk of each county in the District for public posting in each respective courthouse;

3. publish one notice to the public in a newspaper in general circulation within the District; and

4. provide the notice by regular mail to:

   a. the Applicant; and,

   b. known Interested Persons, including, without limitation, those Persons defined by TWC, § 36.119(b), whose rights may be affected by the exception requested, including all governmental agencies having concurrent jurisdiction.

D. The presiding officer shall conduct the exception request hearing in the manner the presiding officer determines to be most appropriate to obtain information and testimony relating to the exception request as conveniently and expeditiously as possible without prejudicing the rights of any Person at the hearing. The presiding officer may limit the number of witnesses and may limit the time witnesses may testify at an exception request hearing.

E. The Board shall enter an order granting or denying an Application for exception, with such conditions as it shall deem proper not later than the 35th day after the date the hearing on the Application for exception is concluded.

F. If the Application for exception to the Rules is denied or modified by the Board, the Applicant may request a rehearing as provided in these Rules.

G. **Request for Rehearing:** An Applicant may request a rehearing before the Board not later than 30 days after the date of the Board's order on any Application for exception to the Rules.

1. A request for rehearing must be filed in writing in the principal office of District and must state the grounds for the request.

2. If the Board grants a request for rehearing, the Board shall schedule the rehearing not later than the 45th day after the date the request is granted.

3. The failure of the Board to grant or deny a request for rehearing before the 45th day after the date the request is submitted constitutes a denial of the request.

H. **Decision; When Final:** A decision by the Board on an Application for exception to the Rules is final:

1. on the expiration of the period for filing a request for rehearing, if a request for rehearing is not timely filed; or

2. if a request for rehearing is timely filed, on the date:

a. the Board denies the request for rehearing; or

b. the Board renders a decision after rehearing.

11.3. **Contested Matters:**

A. Applicability: This Rule applies to the notice and hearing process used by the District for all contested matters pending before the Board including, without limitation, contested permit Applications, contested permit amendment Applications, and contested Allowable Annual Production limits.

B. **Notice of Protest:** If a Person should desire to contest or oppose any pending matter before the Board, one original of a written notice

of protest shall be filed with the District at its principal office. Any protest must be filed with the Board either prior to, or within 30 days after, the Board has issued a final decision, ruling, or order on the matter being protested.

C. **Protest Requirements:** Protests shall be verified and submitted in writing with a duplicate copy to any known opposing party or parties and shall comply in substance with the following requirements:

1. Each protest shall show the name and address of the protestant;

2. Each protest must set forth all allegations of injury to the protestant which may result from: a proposed action or matter to be considered by the Board; or the Board's final decision, ruling, or order on a matter;

3. If a protest is based upon a claim of interference with some present right of the protestant, it shall state the basis of the protestant's claim;

4. Each protest shall identify any resolution that would result in withdrawal of the protest; and

5. The facts stated in each protest shall be verified by affidavit.

D. **Contested Applications or Proceedings Defined:** An Application, appeal, motion or proceeding pending before the Board is considered contested when a notice of protest is filed and the dispute cannot be peacefully resolved by the General Manager. The Application or proceeding shall then be deemed a contested matter. In a contested case hearing any Applicant, intervener, or protestant shall be a party provided each is determined by the Board to have a justiciable interest in the contested matter as hereinafter provided.

E. **Evaluation of Protests:**

1. Except as provided in subsection 11.3.E.5., the General Manager will schedule the contested case hearing request for evaluation by a quorum of the Board. At least 30 days prior to the Board evaluation hearing, the General Manager will provide notice to the protestant and other Persons who have timely requested notice of the evaluation hearing. The Board may receive relevant oral testimony or documentary evidence at the Board evaluation hearing.

2. Persons may submit a written response to the contested hearing request no later than 10 days before the date at which the Board will evaluate the request. Responses shall be filed with and served on the General Manager, the protestants and any other Persons who have timely requested notice of the evaluation hearing. The response should address the question of whether the Person/Persons requesting the contested case hearing has/have a personal justiciable interest related to the matter at issue and not a Person who only has an interest common to members of the public.

3. The Board will evaluate the contested hearing request at the scheduled Board evaluation hearing and will determine if any party appearing in, and/or requesting, the contested case hearing:

    a. has a personal justiciable interest relating to the matters at issue, refer the Application to a contested case hearing, and admit the Person as a party to the hearing; or

    b. does not have a personal justiciable interest related to the proposed action or matter, deny the hearing request, and/or not admit the Person as a party to the hearing.

4. By way of example and not exclusion, a Person shall be deemed to have a justiciable interest if that Person owns Groundwater Rights within the District which rights may be directly affected by the decision of the Board on the contested matter.

5. The Board may delegate to a judge the evaluation of protests.

F. **Authority to Conduct Contested Case Hearings; Delegation; Applicable Procedural Rules; Presiding Officer:**

1. A quorum of the Board may conduct any contested case hearing.

2. By written order, the Board may also delegate the authority to conduct a hearing and refer the matter to an individual or a judge, including a State Office of Administrative Hearings (SOAH) administrative law judge. The individual, judge, or SOAH judge shall sometimes hereinafter be referred to as the "Presiding Officer" or the "Hearing Examiner."

3. Except for a hearing referred to the State Office of Administrative Hearings (SOAH), the procedures provided in this Chapter 11 apply to contested case hearings. If the Board refers a contested case hearing to SOAH, then the applicable rules of practice and procedure of SOAH (Title 1, Chapter 155, Tex. Admin. Code), as supplemented by these Rules, govern any contested case hearing of the District conducted by SOAH.

4. In contested case hearings before the Board, the President shall be the presiding officer. The President of the Board may delegate this function to another Board member. In hearings referred to an individual or a judge, the individual or the judge shall be the presiding officer.

5. If a contested case hearing is referred by the Board to an individual or a judge, the General Manager will prepare all

documents necessary to assist the individual or the judge in preparing for the hearing.

6. Delegating to SOAH. If requested by the Applicant, protestant, or other party to a contested case, the District shall contract with SOAH to conduct the hearing. The party must file such a request not later than the 14th day before the date the evidentiary hearing is scheduled to begin. The Board order granting the contested case hearing may designate a location for the hearing inside the boundaries of the District or in Travis County at a location designated by SOAH. The party requesting the hearing before SOAH shall pay all costs associated with the contract for the hearing and shall, before the hearing begins, deposit with the District an amount sufficient to pay the contract amount. At the conclusion of the hearing, the District shall refund any excess money to the paying party. Any other unpaid SOAH related costs shall be assessed by the District to the responsible party.

G. **Authority of Presiding Officer:** The presiding officer may conduct a contested case hearing proceeding in the manner the presiding officer deems most appropriate for that particular proceeding. The presiding officer has the authority to:

1. set hearing dates;

2. convene the hearing at the time and place specified in the notice for hearing;

3. establish the jurisdiction of the District concerning the subject matter under consideration;

4. rule on motions and on the admissibility of evidence and amendments to pleadings;

5. designate and align parties and establish the order for presentation of evidence;

6. refer parties to an alternative dispute resolution procedure on any matter at issue in the hearing;

7. administer oaths to all Persons presenting testimony;

8. examine witnesses;

9. issue subpoenas in accordance with Rule 14.3.14., when required to compel the attendance of witnesses or the production of papers and documents;

10. compel discovery under these Rules;

11. ensure that information and testimony are introduced as conveniently and expeditiously as possible, without prejudicing the rights of any party to the proceeding;

12. conduct public hearings in an orderly manner, in accordance with these Rules;

13. prescribe reasonable time limits for testimony and the presentation of evidence;

14. recess any hearing from time to time and place to place;

15. re-open the record of a hearing for additional evidence, when necessary to make the record more complete; and,

16. exercise any other appropriate powers necessary or convenient, to effectively carry out the responsibilities of the presiding officer as provided in TWC § 36.406.

H. A pre-hearing conference may be convened as provided in these Rules and be held at a date, time and place stated in the notice given in accordance with Rule 14.3.10., and may be continued from time to time and place to place, at the discretion of the presiding officer.

I. Action taken at a pre-hearing conference may be reduced to writing and made a part of the record, or may be stated on the record at the close of the conference.

J. **Notice of Contested Case Hearing:** The General Manager shall give notice of each hearing.

1. The notice must include:

a. the names of the parties;

b. the address or approximate location of any Wells or proposed Wells involved in the dispute;

c. a brief explanation of the contested matter;

d. the time, date, and location of the hearing; and,

e. any other information the General Manager or Board considers relevant and appropriate.

2. Not later than the 10th day before the date of a hearing, the General Manager shall:

a. post the notice in a place readily accessible to the public in the principal office of the District;

b. provide the notice to the county clerk of each county in the District for public posting in each respective courthouse;

c. publish notice to the public in a newspaper in general circulation within the District; and,

d. provide the notice by regular mail to:

i. all parties in the contested case; and,

ii. any other Person entitled to receive notice under the Rules of the District.

K. **Time and Place of Hearing:** A contested case hearing may be held in conjunction with any meeting of the Board, or a separate proceeding may be convened apart from a Board meeting for the purpose of holding a hearing.

L. **Affidavits:** Whenever the making of an affidavit by a party to a hearing or other proceeding is necessary, it may be made by the party or the party's representative or counsel. This Rule does not dispense with the necessity of an affidavit being made by a party when expressly required by statute or these Rules.

M. **Discovery:** Discovery will be conducted upon such terms and conditions, and at such times and places, as directed by the presiding officer. Unless specifically modified by this Chapter 11, or by order of the presiding officer, discovery will be governed by, and subject to the limitations set forth in, the Texas Rules of Civil Procedure. In addition to the forms of discovery authorized under the Texas Rules of Civil Procedure, the parties may exchange informal requests for information, either by agreement or by order of the presiding officer.

N. **Subpoenas and Depositions:**

1. Requests for issuance of subpoenas in a contested case shall be in writing and directed to the presiding officer.

2. A party requesting the issuance of a subpoena shall file an original and one copy of the request with the presiding officer.

3. If good cause is shown for the issuance of a subpoena, the presiding officer shall issue the subpoena in accordance with § 2001.089 of the Texas Government Code.

4. **Issuance of a Commission Requiring a Subpoena or Deposition:**

a. On its own motion or on the written request of a party to a contested case pending before it, and on deposit of an amount that will reasonably ensure payment of the amount estimated to accrue under § 2001.103 of the Texas Administrative Procedures Act, a state agency shall issue a commission, addressed to the officers authorized by statute to take a deposition, requiring that the deposition of a witness be taken.

b. The commission shall authorize the issuance of any subpoena necessary to require that the witness appear and produce, at the time the deposition is taken, books, records, papers, or other objects that may be necessary and proper for the purpose of the proceeding.

c. The commission shall require an officer to whom it is addressed to:

i. examine the witness before the officer on the date and at the place named in the commission; and

ii. take answers under oath to questions asked the witness by a party to the proceeding, the state agency, or an attorney for a party or the agency.

d. The commission shall require the witness to remain in attendance from day to day until the deposition is begun and completed.

O. **Ex Parte Communications:**

1. For Applications for which there is a right to a contested case hearing, a member of the Board may not, at any time after the Application has been filed and before the Board has taken final action, communicate, directly or indirectly, about any issue of fact or law with any representative of the District or other designate party to the Application, except on notice and opportunity for all parties to participate.

2. Subsection A. does not apply if:

   a. the Board member abstains from voting on a matter in which he or she engage in ex parte communications;

   b. the communications are by and between members of the Board consistent with the Texas Open Meetings Act;

   c. the communications are with District staff who have not participated in any hearing in the contested case for the purpose of using the special skills or knowledge of the staff in evaluating the evidence; or

   d. the communications are with legal counsel representing the Board of Directors.

P. **Evidence:** Except as modified by this Chapter 11, the Texas Rules of Evidence govern the admissibility and introduction of evidence. However, 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 and is not precluded by statute. In addition, evidence may be stipulated by agreement of all parties.

Q. **Written Testimony:** When a proceeding will be expedited and the interests of the parties not substantially prejudiced, 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 placed under oath and identifying the testimony as a true and accurate record of what the testimony would be if given orally. The witness will be subject to clarifying questions and to cross-examination, and the prepared testimony will be subject to objection.

R. **Requirements for Exhibits:** Exhibits of a documentary character must be of a size that will not unduly encumber the files and records of the District. All exhibits must be numbered and, except for maps and drawings, may not exceed 8½ by 11 inches in size.

S. **Abstracts of Documents:** When documents are numerous, the presiding officer may receive in evidence only those that are representative and may require the abstracting of relevant data from the documents and the presentation of the abstracts in the form of an exhibit. Parties shall have the right to examine the documents from which the abstracts are made.

T. **Introduction and Copies of Exhibits:** Each exhibit offered shall be tendered for identification and placed in the record. Copies must be furnished to the presiding officer and to each of the parties, unless the presiding officer rules otherwise.

U. **Excluding Exhibits:** If an exhibit has been identified, objected to, and excluded, it may be withdrawn by the offering party. If withdrawn, the exhibit will be returned and the offering party waives all objections to the exclusion of the exhibit. If not withdrawn, the exhibit shall be included in the record for the purpose of preserving the objection to excluding the exhibit.

V. **Official Notice:** The presiding officer may take official notice of all facts judicially cognizable. In addition, official notice may be taken of generally recognized facts within the area of the District's specialized knowledge.

W. **Documents in District Files:** Extrinsic evidence of authenticity is not required as a condition precedent to admissibility of documents maintained in the files and records of the District.

X. **Oral Argument:** At the discretion of the presiding officer, oral arguments may be heard at the conclusion of the presentation of evidence. Reasonable time limits may be prescribed. The presiding officer may require or accept written briefs in lieu of, or in addition to, oral arguments. For a contested case conducted under Rule 14.3.6.B (Board Delegation of Authority to Conduct a Hearing), when the matter is presented to the Board for final decision, further oral arguments may be heard by the Board.

Y. **Reporting:**

1. Contested case hearings, and associated proceedings, will be recorded by the District on audio cassette tape or, at the discretion of the presiding officer, may be recorded by a certified shorthand or court reporter. The District will not prepare transcriptions of hearings recorded on audio cassette tape on District equipment for the public, but will arrange for a party to have access to the recording.

2. Subject to availability of space, any party may, at its own expense, arrange for a reporter to transcribe or record the hearing.

3. Upon the timely request of any party, or at the discretion of the presiding officer, the presiding officer may assess reporting and transcription costs to one or more of the parties. The presiding officer will consider the following factors in assessing reporting and transcription cost:

    a. the party who requested the transcript;

    b. the financial ability of the party to pay the costs;

c. the extent to which the party participated in the hearing;

d. the relative benefits to the various parties of having a transcript;

e. the budgetary constraints of a governmental entity participating in the proceedings; and,

f. any other factor that is relevant to a just and reasonable assessment of costs.

4. In any proceeding where the assessment of reporting or transcription cost is at issue, the presiding officer will provide the parties an opportunity to present evidence and argument on the matter. A recommendation regarding the assessment of costs will be included in the presiding officer's report to the Board.

5. If a proceeding other than a contested case hearing is recorded by a reporter and a copy of the transcript of testimony is requested by any Person, the testimony will be transcribed and the original transcript filed with the papers of the proceeding at the expense of the Person requesting the transcript of testimony.

6. Copies of the transcript of testimony of any hearing, or other proceeding may be purchased from the reporter.

Z. **Informal Hearings:** Contested case hearings may be conducted informally when, in the judgment of the presiding officer, the conduct of a proceeding under informal procedures will result in a savings of time or cost to the parties, lead to a negotiated or agreed settlement of facts or issues in controversy, not prejudice the rights of any party, and is not objected to by any party. The procedures to be used during such informal hearing shall be established in an order of the presiding officer and the agreement of each party shall be indicated on the order. If during an informal proceeding, all parties

do not reach a settlement to resolve the matters in controversy, the proceeding may be referred to alternative dispute resolution by the presiding officer. A party may present evidence or arguments for the presiding officer to consider as to why alternative dispute resolution is not appropriate.

AA. **Decision to Proceed to Formal Hearing:** If the parties do not reach a settlement to resolve the matters in controversy, and the presiding officer determines that settlement is not likely, then the presiding officer may void the order to proceed under informal procedures and order the case to proceed under the formal procedural Rules provided in this Chapter.

BB. **Agreement of Parties; Remand to Board:**

1. No agreement between parties or their representatives affecting any pending matter will be considered by the presiding officer unless it is in writing, signed, and filed as part of the record, or unless it is announced at the hearing and entered of record.

2. An agreed disposition of a contested case may be made by stipulation, settlement, consent order, or the withdrawal of all requests for a contested case hearing so that no facts or issues remain controverted. Except for contested cases conducted under Rule 14.3.6.A., upon settlement of a matter, the presiding officer shall remand the matter to the Board. If the Person requesting the contested case hearing defaults, then the presiding officer may also deem the request for a contested case hearing to have been withdrawn by the Person and remand the case to the Board. Applications remanded under this section will be considered to be an uncontested Application. The presiding officer will summarize the evidence, including findings of fact and conclusions of law based on the existing record and any other evidence submitted by the parties at the hearing. Any stipulations, settlements, consent orders, withdrawals of requests for contested case hearing, orders,

findings of default, presiding officer summary of the proceedings, and other relevant documents will be presented to the Board for its consideration.

CC. **Alternative Dispute Resolution:**

1. **Policy:** It is the District's policy to encourage the resolution and early settlement of all contested matters through voluntary settlement procedures.

2. **Participants:** The following may be participants in any mediation of a contested-case:

   a. the General Manager,

   b. the Applicant, and,

   c. the Persons who timely filed contested-case hearing requests which gave rise to the dispute, or

   d. if parties have been named, the named parties.

3. **Conduct of Mediation:**

   a. Mediation is a consensual process in which an impartial third party, the mediator, facilitates communication between the participants to promote reconciliation, settlement, or understanding among them. A mediator may not impose his or her own judgment on the issues for that of the participants. The mediator must be acceptable to all participants.

   b. The mediation is subject to the provisions of the Governmental Dispute Resolution Act, Government Code, Chapter 2009, as amended. For purposes of this subchapter, "mediation" is assigned the meaning set forth in the Civil Practice and Remedies Code, §154.023.

c. To facilitate a meaningful opportunity for settlement, the participants shall, to the extent possible, select representatives who are knowledgeable about the dispute, who are in a position to reach agreement, or who can credibly recommend approval of an agreement.

4. **Arrangements for Mediation.**

a. Any Board or presiding officer referral of a disputed matter to mediation or any agreement by the participants to mediate should include consideration of the following factors:

i. the source of the mediator;

ii. the time period for the mediation. The participants should allow enough time in which to make arrangements with the mediator and attending participants to schedule the mediation, to attend and participate in the mediation, and to complete any settlement approval procedures necessary to achieve final settlement;

iii. the location of the mediation;

iv. allocation of costs of the mediator;

v. the identification of representatives who will attend the mediation on behalf of the participants; and

vi. the settlement approval process in the event the participants reach agreement at the mediation.

5. **Confidentiality of Mediation and Final Settlement Agreement:**

a. A mediation conducted under this Rule is confidential in accordance with Government Code, §2009.054.

b. The confidentiality of a final settlement agreement to which a governmental body is a signatory that is reached as a result of the mediation is governed by Government Code, §552.103.

6. **Costs of Mediation:** Unless the participants agree otherwise, each participant shall be responsible for its own costs incurred in connection with the mediation, including costs of document reproduction for documents requested by such participant, attorney's fees, and consultant or expert fees. In addition, unless the participants agree otherwise, the costs of the mediation process itself shall be divided equally between the participants.

7. **Initial Settlement Agreement:** Any settlement agreement reached during the mediation shall be signed by the participants, and shall describe any procedures required to be followed by the participants in connection with final approval of the agreement.

8. **Final Settlement Agreement:** A final settlement agreement reached during, or as a result of mediation, that resolves the disputed issues or any portion of the disputed issues shall be in writing and signed by representatives of the participants who have authority to bind each respective participant. Agreements of the participants reached as a result of alternative dispute resolution are enforceable in the same manner as any other written contract.

a. If the final settlement agreement does not resolve all disputed issues regarding the permit Application at issue, the agreement shall identify the issues that are not resolved.

b. As part of a final settlement agreement, the Persons requesting a contested-case hearing may agree to submit a letter to the Board stating that their hearing request will be withdrawn subject to the Board including in the proposed permits certain provisions or modifications agreed upon by the participants.

c. If the Applicants and all Persons requesting a hearing reach a negotiated or agreed settlement, that settles all the facts or issues in controversy, the proceeding will be considered an uncontested case and the General Manager will summarize the evidence for the Board, including findings of fact and conclusions of law based on the existing record and any other evidence that may have been submitted by the parties at the hearing. The General Manager may request that the Applicants provide an initial draft of the findings of fact and conclusions of law.

d. The Board is not bound by any agreement entered into by the parties and has discretion to accept, reject, or require modifications as a condition of approval of any final agreement of the parties that concerns a matter under the District's authority. In the event that the Board rejects an agreement or requires certain modifications as a condition of approval, the Board may refer the case for further mediation or an informal process guided by the General Manger. The parties, in the instance of rejection or suggested modification by the Board, may also elect to resolve unsettled issues through the contested-case process.

DD. **Remaining Issues:**

1. If mediation does not resolve all issues raised by the parties requesting a contested-case hearing, then the Board will conduct a contested-case hearing on any remaining issues.

2. When alternative dispute resolution procedures do not result in the full settlement of a contested matter, the parties are encouraged to use the mediation process to identify resolved issues, unresolved issues and develop stipulations. The parties shall attempt to limit contested issues through the entry of written stipulations. Such stipulations shall be forwarded or formally presented to the Board or a Hearing Examiner assigned to conduct the hearing on the merits and shall be included in the hearing record.

EE. **Pre-hearing Conference:** A pre-hearing conference may be held to consider any matter that may expedite the hearing or otherwise facilitate the hearing process.

1. Matters Considered. Matters that may be considered at a pre-hearing conference include, but are not limited to:

   a. designation of parties;

   b. additional formulation and simplification of issues;

   c. referral of parties to an alternative dispute resolution procedure;

   d. necessity or desirability of amending Applications or other pleadings;

   e. possibility of making admissions or stipulations;

   f. establishing a discovery control plan;

g. identification of and specification of the number of witnesses;

h. filing and exchange of prepared testimony and exhibits; and

i. establishing procedure at the hearing.

2. A pre-hearing conference may be held at a date, time, and place stated in the notice provided to those Persons entitled to notice pursuant to Rule 14.3.10.B and may be continued from time to time and place to place, at the discretion of the presiding officer.

3. **Conference Action:** Action taken at a pre-hearing conference may be reduced to writing and made a part of the record, or may be stated on the record at the close of the conference.

FF. **Designation of Parties:** Parties to a hearing may be designated on the first day of hearing, or at such other time as the presiding officer determines. The General Manager and any Person specifically named in a matter are automatically designated parties. Persons determined to have a justiciable interest by Board order in a determination of a contested-case hearing request pursuant to Rule 14.3.5 are also automatically designated as parties. After parties are designated, no other Person may be admitted as a party unless, in the judgment of the presiding officer, good cause exists and the hearing will not be unreasonably delayed.

GG. **Rights of Designated Parties:** Subject to the direction and orders of the presiding officer, parties have the right to conduct discovery, present a direct case, cross-examine witnesses, make oral and written arguments, obtain copies of all documents filed in the proceeding, receive copies of all notices issued by the District concerning the proceeding, and otherwise fully participate in the proceeding.

HH. **Persons Not Designated Parties:** At the discretion of the presiding officer, Persons not designated as parties to a proceeding may submit comments or statements, orally or in writing. Comments or statements submitted by non-parties may be included in the record to inform the Board regarding various concerns or issues related to the proceeding and may be considered as evidence if corroborated by sworn testimony or exhibits properly admitted into evidence by a party.

II. **Furnishing Copies of Pleadings:** After parties have been designated, a copy of every pleading, request, motion, or reply filed in the proceeding must be provided by the author to every other party or the party's representative. A certification of this fact must accompany the original instrument when filed with the District. Failure to provide copies may be grounds for withholding consideration of the pleading or the matters set forth therein.

JJ. **Interpreters for Deaf Parties and Witnesses:** If a party or subpoenaed witness in a contested case is deaf, the party who subpoenaed the witness will provide an interpreter whose qualifications are approved by the State Commission for the Deaf and Hearing Impaired to interpret the proceedings for that Person. "Deaf Person" means a Person who has a hearing impairment, whether or not the Person also has a speech impairment that inhibits the Person's comprehension of the proceedings or communication with others.

KK. **Agreements to be in Writing:** No agreement between parties or their representatives affecting any pending matter will be considered by the presiding officer unless it is in writing, signed, and filed as part of the record, or unless it is announced at the hearing and entered of record.

LL. **Certified Questions:**

1. In hearings before a Hearing Examiner, at any time during the contested case proceeding, on a motion by a party or on the

Hearing Examiners' own motion, the Hearing Examiner may certify a question to the Board.

2. Issues regarding District policy, jurisdiction or the imposition of any sanction by the Hearing Examiner that would substantially impair a party's ability to present its case are appropriate for certification. Policy questions for certification purposes include, but are not limited to:

   a. the Board's interpretation of its Rules and applicable statutes;

   b. the rules or statutes which are applicable to a proceeding; and

   c. the Board's policy or whether a Board policy should be established or clarified as to a substantive or procedural issue of significance to the proceeding.

3. If a question is certified, the Hearing Examiner shall submit the certified issue to the General Manager. The General Manager shall place the certified issue on the agenda of the earliest possible meeting of the Board that is not earlier than 20 days after its submission, in compliance with the Open Meetings Act and other applicable law. The General Manager shall give the Hearing Examiner and parties' notice of the meeting at which the certified question will be considered. Within ten days after the certified question is filed, parties to the proceeding may file briefs on the certified question. Within ten days of the filing of such briefs, parties may file responses to such brief. Briefs and responses shall be filed with the docket clerk with copies served on the Hearing Examiner. The General Manager shall provide copies of the certified questions and any briefs and responses to the general counsel and to each Board member. The Hearing Examiner may abate the hearing until the Board answers the certified question, or continue with the hearing if the Hearing Examiner determines that no party will be substantially harmed.

The process for seeking Board answers to certified questions shall be considered as part of the contested-case hearing process.

4. The Board shall issue a written decision on the certified issue within 30 days following the meeting at which the certified issue is considered. A decision on a certified issue is not subject to a motion for rehearing, appeal or judicial review prior to the issuance of the Board's final decision in the proceeding.

MM. **Conclusion of the Hearing:**

1. **Hearings Before the Board:**

a. **Closing the Record:** At the conclusion of the presentation of evidence and any oral argument, the presiding officer may either close the record or keep it open and allow the submission of additional evidence, exhibits, briefs, or proposed findings and conclusions from one or more of the parties. No additional evidence, exhibits, briefs, or proposed findings and conclusions may be filed unless permitted or requested by the presiding officer.

b. Time for Board Action. In the case of hearings before the Board, the Board must act by issuing a written order, within 35 calendar days after the close of the hearing record. This time limitation may be extended by the Board if permitted by Chapter 36 of the Texas Water Code.

2. **Hearings Before a Hearing Examiner:**

a. **Closing the Record; Final Report:** At the conclusion of the presentation of evidence, and any oral argument, the Hearing Examiner may either close the record or keep it open and allow the submission of additional evidence,

exhibits, briefs, or proposed findings and conclusions from one or more of the parties. No additional evidence, exhibits, briefs, or proposed findings and conclusions may be filed unless permitted or requested by the presiding officer. After the record is closed, the Hearing Examiner shall prepare a report to the Board. The report will include a summary of the evidence, together with the Hearing Examiner's findings and conclusions and recommendations for action. Upon completion and issuance of the Hearing Examiner's report, a copy will be submitted to the Board and delivered to each party to the proceeding. In a contested case, delivery to the parties will be by certified mail with return receipt requested.

b. **Exceptions to the Hearing Examiner's Report; Reopening the Record:** Prior to Board action, any party in a contested case heard by a Hearing Examiner may file written exceptions to the Hearing Examiner's report, and any party in an uncontested case may request an opportunity to make an oral presentation of exceptions to the Board. Upon review of the report and exceptions, the Hearing Examiner may reopen the record for the purpose of developing additional evidence, or may deny the exceptions and submit the report and exceptions to the Board. The Board may, at any time and in any case, remand the matter to the Hearing Examiner for further proceedings.

c. **Time for Board Action:** In the case of hearings before a Hearing Examiner, the Hearing Examiner's report will be submitted to the Board and delivered to all parties. Thereupon, the Board shall declare that all proceedings involving the Hearing Examiner have been concluded, subject to the exception provision of the foregoing subparagraph. The Board must act by written order within 35 days after the Board declares that all

proceedings involving the Hearing Examiner have been concluded.

NN. **Request for Rehearing:** An Applicant may request a rehearing before the Board not later than 30 days after the date of the Board's order on any contested matter.

1. A request for rehearing must be filed in writing in the principal office of District and must state the grounds for the request.

2. If the Board grants a request for rehearing, the Board shall schedule the rehearing not later than the 45th day after the date the request is granted.

3. The failure of the Board to grant or deny a request for rehearing before the 45th day after the date the request is submitted constitutes a denial of the requests.

OO. **Decision; When Final:** A decision by the Board on a contested matter is final:

1. on the expiration of the period for filing a request for rehearing, if a request for rehearing is not timely filed; or

2. if a request for rehearing is timely filed, on the date:

   a. the Board denies the request for rehearing; or

   b. the Board renders a decision after rehearing.

11.4. Rulemaking Notice and Hearing Procedures:

A. Not later than the 20th day before the date of a rulemaking hearing, the General Manager shall:

1. post notice in a place readily accessible to the public in the principal office of the District;

2. provide notice to the county clerk of each county in the District for public posting in each respective courthouse; and

3. publish notice of the proposed rules or the proposed rule revisions and the public hearing thereon in a newspaper of general circulation in the counties within the District.

4. provide notice by mail, facsimile, or electronic mail to any Person who has requested such notice under Chapter 36;

5. make available a copy of all proposed rules, or proposed rule revisions, at a place accessible to the public during normal business hours and post the proposed rules on the District's website.

6. provide notice of the rulemaking hearing to the secretary of state to be posted on the Internet.

B. The notice provided under this Rule must include:

1. a statement of the intent of the District to adopt rules;

2. a statement of intent to conduct a public hearing to present the proposed rules and to receive public comment;

3. notice of the date, time, and place for the public hearing and a brief explanation of the subject of the rulemaking hearing;

4. the procedures for obtaining a copy of the proposed rules or the location or website at which the proposed rules can be reviewed and copied; and

5. the procedures for the submission of written or oral comments.

C. In rulemaking hearings before the Board, the President shall be the presiding officer. The President of the Board may delegate this function to another Board member, or the District's legal counsel.

D. Each Person who attends a rulemaking hearing shall submit a hearing registration form stating:

1. the Person's name;

2. the Person's address;

3. whom the Person represents, if the Person is not there in the Person's individual capacity; and,

4. whether the Person wishes to testify.

E. The presiding officer shall conduct the rulemaking hearing in the manner the presiding officer determines to be most appropriate to obtain information and testimony relating to the proposed rule or rules as conveniently and expeditiously as possible without prejudicing the rights of any Person at the hearing. The presiding officer may limit the number of witnesses and may limit the time witnesses may testify at a rulemaking hearing. Comments may be submitted orally or in writing. The presiding officer may hold the record open for a specified period after the conclusion of the rulemaking hearing to receive additional written comments.

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.

11.5 **Show Cause Orders and Hearings:**

A. The Board, either on its own motion or upon receipt of written protests or complaints, may at any time, after due notice to all interested parties, cite any Person operating within the District to appear before it and require that Person to show cause why such

Person's operating authority or permit should not be suspended, canceled or otherwise restricted and limited, and/or why such Person should not be subject to an injunction or civil penalties as set forth in these Rules for failure to comply with the Rules and Orders of the Board or the relevant statutes of the State of Texas. Evidentiary and procedural matters at any such hearing will be conducted in accordance with these Rules.

CHAPTER 12
ENFORCEMENT

Enforcement of Rules

12.1 All Rules duly adopted, promulgated and published by this District shall be enforced as provided under Chapter 36, Texas Water Code as now, or hereafter amended.

12.2 The District may enforce this section and its Rules by injunction, mandatory injunction, reduction of a Person's Allowable Annual Production, or other appropriate remedy in a court of competent jurisdiction.

12.3 The Board may set reasonable civil penalties for breach of any Rule of the District that shall not exceed the limitations set forth in Chapter 36 of the Texas Water Code.

12.4 A penalty under this Chapter 12 is in addition to any other penalty provided by the laws of this State and may be enforced by a complaint filed in a court of competent jurisdiction.

12.5 **Civil Penalties:** Civil penalties for violation of the Rules of the District are divided into two classes: Class One and Class Two.

1. **Penalty Schedule:**

   A. **Class One:** The penalty for violation of each of the following Rules shall not be less than $50, nor more than $10,000, per violation and each day of a continuing violation shall be deemed a separate violation.

Rule	Violation
1.8	Failing to grant entry to real Property to an authorized officer, employee, agent or representative of the District to inspect, or for other authorized purposes.
3.1 et seq	Drilling a Well or increasing the size of a Well without filing an Application with the District to register the Well or applying to the District and receiving a permit or amended permit.
3.1 et seq	Failure to register a "rig" Well that is exempt under Texas Water Code §36.117, or to properly equip and maintain such Well.
3.1 et seq	Failure to register a Well.
3.1 et seq	Failure to apply for a Well Permit for a non-exempt Well.
3.1 et seq	Failure to apply for an Export Permit.
3.1 et seq	Willfully giving erroneous information on a Well Application.
3.1 et seq	Withdrawing Groundwater from a Well without having furnished information about the Well on a form required by the District.
3.1 et seq	Failure to keep records, including driller's and/or electric logs, and file such logs and reports of drilling, equipping and completion of Wells with the District as required by District Rules and the regulations of the Texas Department of Licensing and Regulation.
6.1 et seq	Failure to complete or equip a Well to protect human life and prevent Pollution as

	required by District Rules and the regulations of the Texas Department of Licensing and Regulation.
6.1	Drilling, completing or reworking a Well without having a current Texas Water Well Driller's license, Texas Pump Installer's license, or failure to comply with the Rules of the District, State of Texas, federal or other political subdivision, including the Texas Department of Licensing and Regulation.
5.1 et seq	Drilling a Well at a location other than a location approved by the District.
3.6, 7.1	Reworking, re-drilling or re-equipping a Well, or drilling a replacement Well, without filing a new Application with the District.
9.1 et seq	The failure to pay Export fee(s) to the District as required.
9.8	Failure of a Water Exporter to provide required reports to the District.
3.4, 3.5	Exceeding production limits set by the Board.
10.1 et seq	Failure to protect the Groundwater from Pollution.
10.1 et seq	Failure to install equipment for the protection of Groundwater quality as required by the District's Rules.
10.2	Failing to properly close or cap an open or uncovered Well.

10.1 et seq	Waste of Groundwater.
10.1 et seq	The production of Water from any abandoned or Deteriorated Well.

B. **Class Two:** The civil penalty for violation of any of the remaining Rules of the District, as may be supplemented or amended from time to time, shall not be less than $25, nor more than $5,000 per violation, and each day of a continuing violation shall be deemed a separate violation.

CHAPTER 13
DEFINITIONS

Unless the context hereof indicates a contrary meaning, the words hereinafter defined shall have the following meaning in these Rules:

13.1 **"Acre-feet"** 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.

13.2 **"Applicant"** is a Person seeking action by the District such as requesting a permit or a hearing.

13.3 **"Aquifer"** means a saturated geological formation or a part of a formation or a group of formations capable of storing and yielding fresh Water in economically usable quantities.

13.4 **"Annual"**, and/or "**Year** means a calendar Year beginning on January 1 and ending on December 31.

13.5 **"Beneficial Use"** means use for:

1. agricultural, gardening, domestic, stock raising, municipal, mining, manufacturing, industrial, commercial, recreational, or pleasure purposes;

2. exploring for, producing, handling, or treating oil, gas, sulphur, or other minerals; or

3. any other purpose that is useful and does not constitute Waste as defined in Chapter 10.

13.6 **"Board"** means the governing body of the Clear Fork Groundwater Conservation District, consisting of five (5) duly elected members as provided in Chapter 36, Texas Water Code, as amended.

13.7 **"Chapter 36"** refers to the Chapter of the Texas Water Code which authorizes creation of Groundwater Conservation districts and outlines the powers and duties of a Groundwater Conservation district. A reference to a specific section or subsection may be identified using the symbol "§" or by using the abbreviation of "Sec."

13.8 **"Confined Animal Feeding Operation"** shall mean a lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be, confined and fed or maintained for a total of 45 calendar 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.

13.9 **"Conservation"** shall mean practices, techniques and technologies that will reduce the consumption of Water, reduce the loss or waste of Water, improve efficiency in the use of Water, or increase the use of recycled Water.

13.10 **"Contiguous Acre"** means an acre of land within the District and all additional acreage within the District, which is either (a) abutting acreage that physically touches, including corner-to-corner, or (b) non-abutting acreage if the two properties are connected and Water is being delivered to the properties by a common Underground Water pipeline system. Further, acreage separated only by roads or County lines shall be considered contiguous. In addition, the same Person shall have the right to produce Groundwater from the Contiguous Acreage through deed, easement, contract, lease, or any other legally recognized agreement. A municipality may include the acreage within its city limits if the municipality has adopted an Ordinance prohibiting the drilling of Wells within the confines of its city limits.

13.11 **"Conveyance"** means any transfer of Water Rights by deed, lease, or assignment, whereby a right to capture Water is partially or completely

severed from the surface of the Property.

13.12 **"Deteriorated Well"** shall mean a Well, the condition of which will cause, or is likely to cause, Pollution of Groundwater in the District.

13.13 **"District"** means the Clear Fork Groundwater Conservation District, maintaining its principal office in Roby, Fisher County, Texas. Where Applications, reports and other papers are required to be filed or sent to "the District", this means the District's principal office at 601 W. South 1st, Roby, Fisher County, Texas 79543, mailing address P.O. Box 369, Roby, Fisher County, Texas 79543, Phone/Facsimile: 325-776-2130. The District shall also be known by the acronym "CFGCD".

13.14 **"Entity"** shall have the same meaning, for these Rules, as "Person".

13.15 **"Export"** means the transfer of Groundwater outside the District's boundaries.

13.16 **"Export Facility"** means all Property and equipment utilized in the Export process, including, without limitation, Water Rights, Wells, pipelines, meters, storage facilities and pumping stations.

13.17 **"General Manager"** means the Person hired by the Board to manage the daily administrative functions of the District, and is responsible to carry out all programs of the District necessary for Groundwater and hydro-geological management activities.

13.18 **"Groundwater"** means Water percolating below the surface of the earth.

13.19 **"Groundwater Reservoir"** means a specific subsurface Water-bearing geologic unit or units having ascertainable boundaries and containing Groundwater.

13.20 **"Interested Person"** means any Person whose rights, duties or obligations may be affected by the actions of the District.

13.21 **"Owner"** means and includes any Person or other Entity, public or private, which has the legal right to produce and capture Water from real Property, either by ownership, contract, lease, easement, or any other estate in the

real Property and/or Water except as that right may be limited or altered by rules promulgated by the District and Chapter 36.

13.22 **"Person"** means any individual, partnership, trust, state agency, political subdivision, cooperative, corporation, limited liability company, or any other similar legal Entity.

13.23 **"Pollution"** means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, Water in the District that renders the Water harmful, detrimental, or injurious to humans, animal life, vegetation, or Property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the Water for any lawful or purpose.

13.24 **"Property Line"** means the outer boundary of Water Rights under common ownership.

13.25 **"Section"** means an area of real Property containing 640 acres, more or less, as defined by the legal survey maps of the Counties, or portions thereof, within the District.

13.26 **"Test or Exploratory Hole"** shall mean any hole drilled to a depth greater than the top of any stratum containing Groundwater, as "Groundwater" as is defined in Chapter 36, Texas Water Code, as amended, for the purpose of securing geological or other information, which may be obtained by penetrating the earth with a drill bit, and includes what is commonly referred to in the industry as "Water Well test holes," "slim hole test" or seismograph test holes" and the like.

13.27 **"Texas Water Code (TWC)"** refers to the laws which govern the use and disposition of Water in the state of Texas.

13.28 **"Underground Water"** is used synonymously with Groundwater.

13.29 **"Water"** is used synonymously with Groundwater and Underground Water.

13.30 **"Water Rights"** means the number of acres within each Section from which a Person has acquired the right to capture Groundwater.

13.31 **"Well"** or **"Water Well"** means any artificial excavation constructed for

the purpose of exploring for or producing Groundwater that is in compliance with the District Rules. The term, however, shall not include any Test or blast holes in quarries or mines, or any Well or excavation for0 the purpose of exploring for, or producing oil, gas, or any other minerals unless the holes are used to produce Groundwater. The term shall not include any injection Water source Well regulated by the Railroad Commission of Texas, or any open excavated pond or pit used for livestock Water or recreational purposes.

13.32 **"Well Permit"** means a completed form prescribed by the District authorizing a Well in accordance with these Rules. (TWC §§36.113 and 36.1131)

CHAPTER 14
Effective Date of These Rules

14.1 **These Rules shall become effective** on November 30, 2017 at 6:50 p.m. and all prior Rules of the District are hereby repealed. Any violation of District Rules before the effective date and time of these Rules is governed by District Rules then in effect, and the previous Rules of the District are continued in effect for that purpose.

Clear Fork Groundwater Conservation District

By: _____
Ted Posey, President,
Board of Directors

ATTEST:

_____
Greg Pruitt, Vice President,
Board of Directors

_____
Jack Brown, Secretary
Board of Directors

_____
Don Lambert, Director

_____
Rowdy Rasberry, Director

From: Clearfork Gcd
To: brandi.rodco@att.net
Subject: Clear Fork GCD Management Plan
Date: Tuesday, February 8, 2022 5:25:30 PM
Attachments: Managment Plan Adopted 11-29-2021 .docx

Brandi Rodco - Office administrator
Sylvester-McCaulley Water

As required by the TWDB for your files,
Please find attached a copy of the adopted 11-29-2021 Management Plan.

--
Belynda Rains
Clear Fork GCD
General Manager
325-721-8936 - mobile phone - text
325-776-2730 - fax

From: Clearfork Gcd
To: Stephen Allen
Subject: Fwd: Clear Fork GCD Management Plan
Date: Tuesday, February 8, 2022 5:10:37 PM
Attachments: Managment Plan Adopted 11-29-2021 .docx

---------- Forwarded message ---------
From: **Clearfork Gcd** <clearforkgcd@gmail.com>
Date: Tue, Feb 8, 2022 at 5:09 PM
Subject: Clear Fork GCD Management Plan
To: Jack Brown <jackwbrown@yahoo.com>

City of Roby Manager,

As required by the TWDB Please find attached a copy of the 11-29-2021 Adopted Management Plan for your files.

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Belynda Rains
Clear Fork GCD
General Manager
325-721-8936 - mobile phone - text
325-776-2730 - fax

--
Belynda Rains
Clear Fork GCD
General Manager
325-721-8936 - mobile phone - text
325-776-2730 - fax

From: Clearfork Gcd
To: Stephen Allen
Subject: Fwd: Brazos River Authority Information
Date: Tuesday, February 8, 2022 5:07:55 PM
Attachments: Managment Plan Adopted 11-29-2021 .docx

---------- Forwarded message ---------
From: **Clearfork Gcd** <clearforkgcd@gmail.com>
Date: Tue, Feb 8, 2022 at 4:44 PM
Subject: Re: Brazos River Authority Information
To: Information Inquiry(from Brazos.org) <information@brazos.org>

On Wed, Jan 12, 2022 at 8:58 AM Information Inquiry(from Brazos.org) <information@brazos.org> wrote:

> Good morning,
>
> You are welcome to use this email address.
>
> **Public Information**
> (254) 761-3100 | information@brazos.org
> Brazos River Authority
> 4600 Cobbs Drive, Waco, TX 76710
> www.brazos.org
>
> Follow us on Facebook, Instagram, and Twitter, and don't forget to sign up for our quarterly newsletter.
>
>
>
> ---
>
> **From:** InformationForm@brazos.org <InformationForm@brazos.org>
> **Sent:** Tuesday, January 11, 2022 4:07 PM
> **To:** Information Inquiry(from Brazos.org) <information@brazos.org>

Subject: Brazos River Authority Information

Name of Contact: Belynda Rains

Phone: 3257218936

Email: clearforkgcd@gmail.com

Comment/Question: Please find attached the 11-29-2021 Adopted Management Plan.

Submission Date: 1/11/2022 4:06:53 PM

User IP: 172.103.116.148

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Belynda Rains
Clear Fork GCD
General Manager
325-721-8936 - mobile phone - text
325-776-2730 - fax

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Belynda Rains
Clear Fork GCD
General Manager
325-721-8936 - mobile phone - text
325-776-2730 - fax

From: Clearfork Gcd
To: cityofrotan.office@yahoo.com
Subject: Clear Fork GCD Management Plan
Date: Tuesday, February 8, 2022 5:06:44 PM
Attachments: Managment Plan Adopted 11-29-2021 .docx

City of Rotan & DPR Water Manager,

As required by the TWDB.
Please find attached a copy of the 11-29-2021 adopted Management Plan.

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Belynda Rains
Clear Fork GCD
General Manager
325-721-8936 - mobile phone - text
325-776-2730 - office