2017 Annual Report

North Texas Groundwater Conservation District

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ATTACHMENTS

Board of Directors

Collin County

Joseph Helmberger, Member

Allen Knight, Secretary Treasurer

Philip Sanders, Member

Cooke County

Ron Sellman, Member

Ronny Young, President

Vacant

Denton County

Chris Boyd, Member

Evan Groeschel, Member

Thomas Smith, Vice President

Staff

Drew Satterwhite, P.E., General Manager

Paul M. Sigle, EIT, Groundwater Technical Lead

Allen Burks, Groundwater Field Technician

Wayne Parkman, Groundwater Field Technician

Theda Anderson, Office Clerk

Debi Atkins, Finance Officer

Tamera Flores, Accountant

Tasha Hamilton, Accountant

Carolyn Bennett, Administrative Manager/Project Coordinator

Velma Starks, Administrative Assistant

I. Introduction

In 1997 Senate Bill 1, enacted by the Texas Legislature, confirmed a state policy that "groundwater conservation districts... are the state's preferred method of groundwater management through rules developed, adopted and promulgated by a district..." Subsequently, the Texas Commission on Environmental Quality issued a report in 2007 advising that one or more groundwater conservation districts would need to be created in the 13-county area of North Central Texas, including the Counties of Collin, Cooke and Denton. North Texas Groundwater Conservation District ("District") was created by Senate Bill 2497, May 27, 2009. Creation of the District was confirmed by Commissioners Court of Collin County August 10, 2009, Commissioners Court of Cooke County August 10, 2009 and Commissioners Court of Denton County August 11, 2009.

Temporary Rules were adopted by the Board of Directors October 19, 2010. As required by Chapter 36 of the Texas Water Code, the District provides for conserving, preserving, protecting, recharging and preventing the waste of groundwater. The adopted Rules provide protection to existing wells, prevent waste, promote conservation, provide a framework to allow availability and accessibility of groundwater for future generations, protect quality of ground water in recharge zone of aquifer, and insure residents of Collin, Cooke and Denton Counties maintain local control over their groundwater. The Rules also insure the District operates in a fair and equitable manner for all residents of the District.

The District's Temporary Rules were amended and updated March 1, 2017. These amendments addressed clarifying definitions for "modify" or "modified," "new well," and "substantially alter". In addition, rules were added to address registration of non-exempt wells prior to modifications and operation, prevention of siphoning of external water and contaminates into wells, and completion standards to allow District to measure flow rate for non-exempt wells. The rule addressing groundwater transport fees was refined, a rule was added to address failure to submit water productions reports and penalties for such failure, fines for minor violations and major violations were revised, and other minor revisions were made to the Temporary Rules.

The District adopted its initial Management Plan April 19, 2012. As required, the District's Management Plan was updated and readopted March 14, 2017. The Texas Water Development Board approved the updated Plan May 12, 2017. One requirement of the Management Plan is for an Annual Report to be provided to the Board of Directors. This report is presented to the Board of Directors of the North Texas Groundwater Conservation District pursuant to this requirement.

II. General Manager's Report

This annual report has been prepared by District staff for presentation to the Board to keep them informed of the status of goals adopted by the Plan. Wells drilled after April 1, 2011 and all existing non-exempt wells are required to be registered with the District. Monthly briefings are presented in the General Manager's Report at District Board meetings.

During 2017, the North Texas GCD Board of Directors and staff accomplished the following tasks:

- Adopted Desired Future Conditions ("DFC")
- Addressed the need for updating the District's geodatabase and entered into a contract to update the geodatabase including development of a Water Well Management System
- Began development of Permanent Rules and held workshops with consultants
    - April 11, 2017
    - August 16, 2017
    - October 10, 2017
    - November 14, 2017
    - December 12, 2017
- Revised District By Laws
    - Revisions included clarification of required signatures for District payments, purchasing authority granted to General Manager, construction projects being based on state procurement laws, procedures for staff to follow during the Board Member appointment process, and other minor revisions
- Developed brochure regarding transfer of ownership due to sale of property for local realtor associations (See Attachment J)
- Developed a Fund Balance Policy
- Updated Investment Policy
- Continued meter inspection program, including the meter sealing policy to assure meters stay with the well for which it is assigned
- Well inspection program sustained
- Review of Joint Groundwater Monitoring and Contamination Report prepared by Texas Commission on Environmental Quality, Texas Railroad Commission and other agencies addressing potential impacts from historic and ongoing oil and gas exploration
- Well monitoring activities continued
- Continued public information program in each county by publishing article in newspaper of general circulation for each county regarding registration of wells
- Provided information to public agencies regarding the North Texas GCD
- Provided Major Rivers curriculum for water conservation to 4th grade classes within the District

III. Management Goals

The District Management Plan provides that an Annual Report be prepared by the General Manager and staff of the District, covering the activities of the District, including information concerning the District's performance in regards to achieving the District's management goals and objectives.

Goal 1 – Providing the most efficient use of water

Management Objective 1.1 – The District will require that all wells be registered in accordance with its current rules. All new wells drilled after April 1, 2011 and all existing non-exempt wells are required to be registered with the District in accordance with its current rules.

Performance Standard 1.1 – Subsequent to adoption of the Plan, briefings are being provided by the General Manager to the Board of Directors regarding well registration program at the monthly board meetings. In addition, a handout was developed by District staff to be provided annually to local realtor associations detailing the requirement of new property owners to register their existing wells within ninety (90) days of transfer of ownership.

Current number of wells registered in the District: 2,062
Aquifers in which the wells have been completed: Trinity and Woodbine

Management Objective 1.2 – It is the goal of the District that all non-exempt wells and exempt wells be registered. Beginning in April 2011 the District launched an on-line registration program in order to register and collect important information regarding all non-exempt wells drilled on or after April 1, 2011. The District's Field Technicians manage a Field Inspections Program, with the objective of conducting field inspections of at least five (5) wells per month. These inspections confirm that a well has been registered, accuracy of well location, and accuracy of certain other required well registration information.

Performance Standard 1.2 – Quarterly briefings are provided by the General Manager to the Board of Directors regarding the number of well sites inspected each month to confirm well registration requirements have been met. Requirement to inspect/audit well sites each month to confirm well registration requirements has been met. This information is reported in Table 1.2.

2017
Well Inspections
Table 1.2

Month	Collin	Cooke	Denton	Total
January	6	1	14	21
February	3	2	18	23
March	13	4	10	27
April	13	10	10	33
May	5	12	15	32
June	10	2	18	30
July	8	4	33	45
August	19	9	14	42
September	14	14	16	44
October	2	10	11	23
November	6	2	32	40
December	2	0	24	26
Total	101	70	215	386

This information is updated and presented monthly to the Board of Directors.

Management Objective 1.3(a) – A groundwater monitoring program was launched in 2013, to collect information on the quantity and quality of groundwater resources throughout the District. For the first two years, beginning in 2013, District staff began to work with Texas Water Development Board ("TWDB") staff to monitor water levels in wells the TWDB staff currently monitors on an annual basis. After the initial two-year period, District staff assumed the responsibility of monitoring these wells at least annually. In addition, one additional well will be added in each county, for a total of three wells to the system. District staff is working on agreements with well owners for additional monitoring wells to add wells to the District's groundwater monitoring program. All monitoring well owners have been contacted, and sent agreements. At this time, the District has four (4) agreements that have not been signed and returned.

For the purpose of water quality sampling, the samples collected for water quality taken by the Texas Commission on Environmental Quality staff every five years will be used for monitoring purposes initially, and may be supplemented as determined by the Board in the future. All information collected will be entered into the District's geodatabase.

Performance Standard 1.3(a)(1) – Number of wells in Collin, Cooke and Denton Counties for which water levels were measured per year:

Wells Measured
Table 1.3A

Year	Wells Measured
2013	22
2014	31
2015	31
2016	31
2017	24

District staff measured wells within the District in October 2017. Twenty-four (24) wells were measured.

Performance Standard 1.3(a)(2) – Number of wells in Collin, Cooke and Denton Counties for which water samples were collected for testing of water quality: The Texas Commission on Environmental Quality provides a Consumer Confidence Report that provides consumers with information about the quality of drinking water. This data may be reviewed at www.tceq.texas.gov/drinkingwater/ccr/ for water systems.

Management Objective 1.3(b) – In order to ensure the efficient use of groundwater, adequate data must be collected to facilitate groundwater availability modeling activities necessary to understand current groundwater resources and the projected availability of those resources in the future. Monitoring wells will be established by the District for continuous time information on water levels in targeted locations on a schedule as determined by the District's Board of Directors, as funds become available.

Performance Standard 1.3(b) – Number of wells for which water level data is available will be accessible online after the current geodatabase improvements project is complete.

Management Objective 1.4 – A critical component of the District's goal of ensuring the efficient use of groundwater is the collection of accurate water use information. The District has established by temporary rule a requirement that all non-exempt wells are to be equipped with meters to measure use of groundwater. The well owner/operator is responsible for maintaining a meter log with at least monthly records of water use. Cumulative water use to be reported by well owner/operator on a quarterly basis. All water use information is entered and maintained in the District's geodatabase. It is the objective of the District that 95 percent of all registered non-exempt wells will report water use by the reporting deadlines established in the District's rules.

Performance Standard 1.4 – Percentage of registered non-exempt wells meeting reporting requirements of water use:

Percentage of Registered Non-Exempt Wells Meeting

Reporting Requirements of Water Use

Table 1.4

Year	Percentage Meeting Reporting Requirements
2012	85
2013	89
2014	95
2015	96
2016	92
2017	82

Please note that in 2017 the District implemented a late fee for meter readings that were submitted after 30 days. This makes the data above illustrate that we are not improving when in actuality, the District is getting much better compliance with submission of meter readings.

Management Objective 1.5 – In order to ensure that registered non-exempt wells have been equipped with District-approved meters and that water use is being accurately reported, a meter inspection program has been implemented by District staff. The District Field Technicians facilitate a meter inspection program to ensure that meters for all registered non-exempt wells will be inspected on at least a five-year cycle by District personnel. These inspections at a minimum verify proper installation and operational status of meters and record the meter reading at the time of inspection. This meter reading is compared to the most recent water use report for the inspected well. Any potential violation of District Rules regarding meter installation and reporting requirements will be reported to the Board of Directors at their next practicable meeting for consideration of possible enforcement actions. Information containing annual water use, by registered well, by county, and by aquifer, will be included in the Annual Report presented by the General Manager. The report will include a comparison of reported water use versus the estimate of modeled available groundwater (the sum of exempt and permitted groundwater) established as a result of the Desired Future Conditions for aquifers in the District. This will be available to be included in future Annual Reports to the Board of Directors, since the Desired Future Conditions for the District were approved at the December 2017 Board meeting.

Performance Standard 1.5(a) - Percentage of registered non-exempt wells inspected by District personnel annually to verify meters meet District requirements:

Percentage of Registered Non-Exempt Wells

Inspected Annually

Table 1.5

Year	Percentage of Wells Inspected
2012	74%
2013	6%
2014	21%
2015	24%
2016	13%
2017	37%

Performance Standard 1.5(b) - Comparison of annual water use versus estimates of modeled available groundwater established as a result of the adopted Desired Future Conditions to be included in Annual Report provided by the General Manager at the first regularly scheduled meeting after which the current geodatabase improvements project is completed.

Management Objective 1.6 – A critical component to accomplishing the District's mission is to ensure that proper data is being collected and that the data is being utilized to the fullest extent and efficiently. Shortly after the District was created, the District hired a consultant to build an online geodatabase that would make workflows, data entry and data utilization easier and more efficient for well owners, well drillers, general public, District staff and Board of Directors. After several years of utilizing the geodatabase the District had built, the District staff has identified areas in which the existing system can be upgraded.

Performance Standard 1.6 – The District has hired a consultant to upgrade the District's geodatabase. The consultant is in the process of building an upgraded database to make workflows, data entry and data utilization easier and more efficient.

Management Objective 1.7 – The District will develop methodology to quantify current and projected annual groundwater production from exempt wells.

Performance Standard 1.7 – The District will provide the Texas Water Development Board with its methodology and estimates of current and projected annual groundwater production from exempt wells. The District will also utilize the information in the future in developing and achieving desired future conditions and in developing and implementing its production allocation and permitting system and rules. Information pertaining to the implementation of this objective will be included in the Annual Report to the Board of Directors by 2019.

Goal 2 – Controlling and preventing waste of groundwater

Management Objective 2.1 – The District will annually provide information to the public on eliminating and reducing wasteful practices in the use of groundwater by publishing information on groundwater waste reduction on the District's website at least once a year.

Performance Standard 2.1 – A link has been provided on the District website to Best Management Practices and helpful hints to control and prevent waste of groundwater.

The following is an excerpt of information available on the District website:

Conservation Tips:

The NTGCD would like to encourage residents to conserve water. During fall and winter months, lawns in our region require much less irrigation as the grasses go dormant.

How much water do you use at your home? Estimate your daily and annual water use and learn methods to conserve water at the Home Water Works site.

Rainwater Harvesting Links
TWDB Rainwater Harvesting Information
Texas Water by Texas A&M
TWDB Manual on Rainwater Harvesting
Rainwater Harvesting with Rain Barrels

Water Conservation Links
Home Water Conservation Guide
Water IQ by the Texas Water Development Board
Drought Preparedness Council Situation Report

Best Management Practice links
TWDB Best Management Practices for Conservation
Water Advisory Council Best Management Practices

Brush Control Links
State Water Supply Enhancement Plan (July 2014)
Texas State Soil and Water Conservation Board
AgriLife Extension Texas A&M System Brush Control Program

Management Objective 2.2 – The District will encourage the elimination and reduction of groundwater waste through a collection of water-use fees for non-exemption production wells within the District.

Performance Standard 2.2 – See Table 2.2

Annual Report
Fees Paid and Groundwater Usage
Table 2.2

Year	Total Fees Paid	Total Groundwater Used
2017	$625,968.76	6,259,687,600

Management Objective 2.3 – The District will identify well owners that are not in compliance with District well registration, reporting, and fee payment requirements, and request they comply.

Performance Standard 2.3 – District staff compares existing state records and field staff observations with well registration database to identify noncompliant well owners.

Management Objective 2.4 – The District will investigate instance of potential waste of groundwater.

Performance Standard 2.4 – District staff will report to the Board of Directors as needed regarding potential waste of groundwater and include number of investigations in Annual Report.

Goal 3 – Controlling and preventing subsidence – not applicable to North Texas GCD

Goal 4 – Addressing conjunctive surface water management issues

Management Objective 4.1 – Coordinating with surface water management agencies. Designated board member or General Manager shall attend a minimum of 75 percent of meetings and events of Region C Water Planning Group. Participation in the regional water planning process will ensure coordination with surface water management agencies that are participating in the regional water planning process.

Performance Standard 4.1 – Report on actions of Region C Water Planning Group shall be provided to the Board as appropriate. General Manager to document meetings attended and significant actions of the planning group in Annual Report.

Region C Water Planning Group held two (2) meetings in 2017, on May 22, 2017 and December 18, 2017. General Manager Drew Satterwhite, P.E. attended the meeting held May 22, 2017.

Minutes of the May 22, 2017 meeting (final) and December 18, 2017 meeting (draft) are attached in Attachment E.

Management Objective 4.2 – Designated technical representative of the District will monitor and participate in all stakeholder meetings that concern water resources relevant to the District.

Performance Standard 4.2 – The General Manager of the District will monitor and participate in relevant stakeholder meetings that concern water resources relevant to the District. A report on meetings attended will be included in the Annual Report to the Board of Directors.

2017 - General Manager attended the GMA 8 Meeting, 1 of 2 Region C Water Planning Meetings, both of the Trinity Aquifer Brackish Stakeholder meetings. Attachment E contains minutes of the Region C 2017 meetings and Attachment F contains reports on the Stakeholder meetings attended during 2017.

Goal 5 – Addressing natural resource issues

Management Objective 5.1

The District has engaged a firm to monitor all injection well applications within the District and notify the General Manager of any potential impacts.

Performance Standard 5.1 – General Manager will report to the Board of Directors on any information provided by the consultant engaged to monitor injection well applications within the District to the Board of Directors and document that information in the Annual Report to the Board of Directors.

Sledge Law monitors the injection well activity in the District. Several protests were filed by the District, but all were resolved by providing more information to the District or making minor changes in their applications before a formal hearing.

Management Objective 5.2 – The District will monitor compliance by oil and gas companies of well registration, metering, production reporting, and fee payment requirements of the District's rules.

Performance Standard 5.2 – As with other types of wells, instances of non-compliance by owners and operators of water wells for oil and gas activities will be reported to the Board of Directors as appropriate and for enforcement action. A summary of such enforcement activities will be included in the Annual Report to the Board of Directors.

Goal 6 – Addressing drought conditions

Management Objective 6.1 – The District will make available through the District's website easily accessible drought information with an emphasis on developing droughts and any current drought conditions.

Performance Standard 6.1- The District has made available through the District website easily accessible drought information with an emphasis on developing droughts and on any current drought conditions. Monthly U.S. Drought Monitor maps for Texas are available on the District website. Copies of each month's report for 2017 are attached to this report.

Goal 7 – Addressing conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, and brush control

Texas Water Code §36.1071(a)(7) requires that a management plan include a goal that addressed conservation, recharge enhancement, rainwater harvesting, precipitation enhancement, or brush control, where appropriate and cost-effective. The District has determined that a goal addressing recharge enhancement and precipitation enhancement would not be appropriate or cost effective, and therefore is not applicable to the District.

Management Objective 7.1 – Provide for and facilitate the conservation of groundwater resources within the District. The District will include a link on the District's website to the electronic library of water conservation resources supported by the Water Conservation Advisory Council.

Performance Standard 7.1 – Link to electronic library of water conservation resources supported by the Water Conservation Advisory Council is available on the District website.

The following are the links to the electronic library of water conservation resources supported by the Water Conservation Advisory Council that is available on the District's website:

Best Management Practice links:
TWDB Best Management Practices for Conservation
Water Advisory Council Best Management Practices

Management Objective 7.2 – The District will submit at least one article regarding water conservation for publication each year to at least one newspaper of general circulation in the District's Counties.

Performance Standard 7.2- Attachment B contains the article published during 2017 regarding water conservation.

Management Objective 7.3 – The District will provide educational curriculum regarding water conservation offered by the Texas Water Development Board (Major Rivers) to at least one elementary school in each county of the District.

Performance Standard 7.3 – Major Rivers curriculum purchased from the Texas Water Development Board was provided to three schools within the District.

Management Objective 7.4 – Rainwater harvesting is assuming a viable role either as a supplemental water supply or as the primary water supply in both urban and rural areas of Texas. As a result, Texas has become internationally recognized for the widespread use and innovative technologies that have been developed, primarily through efforts at the Texas Water Development Board. To ensure these educational materials are readily available to citizens in the District, a link to rainwater harvesting materials including system design specifications and water quality requirements will be maintained on the District's website.

Performance Standard 7.4 – The following links are maintained on the District's website:

Rainwater Harvesting Links
TWDB Rainwater Harvesting Information
Texas Water by Texas A&M
TWDB Manual on Rainwater Harvesting
Rainwater Harvesting with Rain Barrels

Management Objective 7.5 – Educate public on importance of brush controls as it related to water table consumption.

Performance Standard 7.5 – The following links are maintained on the District's website:

Brush Control Links
State Water Supply Enhancement Plan (July 2014)
Texas State Soil and Water Conservation Board
AgriLife Extension Texas A&M System Brush Control Program

Goal 8 – Achieving Desired Future Conditions of Groundwater Resources

The Desired Future Conditions of the aquifers of Groundwater Management Area 8 represent average water levels in the various aquifers at the end of 50-years based on meeting current and projected groundwater supply needs. The Board of Directors has adopted a strategic approach that includes adoption of this management plan and rules necessary to achieve the Desired Future Conditions. This management plan and companion rules have been designed as an integrated program that will systematically collect and review water data on water quantity, water quality, and water use, while at the same time, implementing public awareness and public education activities that will result in a better formed constituency.

Management Objective 8.1 – Statute requires GCDs to review, amend as necessary, and readopt management plans at least every five years. The General Manager will annually present a summary report on the status of achieving the adopted desired future conditions.

Performance Standard 8.1(a) – The General Manager will present a summary report on the status of achieving the adopted desired future conditions in the Annual Report beginning 2019. The summary report will primarily be based on data collected from the District's groundwater monitoring program. The Desired Future Conditions for the North Texas GCD were adopted in December 2017.

Performance Standard 8.1(b) – Beginning four years after adoption of the Plan, General Manager will work with Board of Directors to conduct a focused review to determine if any elements of this Plan or the District Rules need to be amended to achieve the adopted Desired Future Conditions, or if the Desired Future Conditions need to be reviewed/revised to better reflect the needs of the District. Possible results of the five-year review: (1) determination that current Plan and Rules are working effectively to achieve Desired Future Conditions, (2) specific amendments need to be made to the Plan and/or Rules to achieve the adopted Desired Future Conditions, (3) amendments are needed to the adopted Desired Future Conditions to better meet the needs of the District, or (4) a combination of (2) and (3). This determination to be made at a regularly scheduled meeting of the Board of Directors no later than five years after adoption of the Plan.

The North Texas Groundwater Conservation District has participated with Upper Trinity Groundwater Conservation District, Northern Trinity Groundwater Conservation District and

ATTACHMENT A

Excerpts from TCEQ Joint Groundwater Monitoring Contamination Report – 2016

TABLE 1
GROUNDWATER CONTAMINATION CASE DESCRIPTION BY COUNTY
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

COUNTY	DIVISION	NEW CASES	FILE NAME	FILE NUMBER	LOCATION	CONTAMINATION DESCRIPTION	DATE	ENFORCEMENT STATUS		DATA QUALITY §5.236
CHEROKEE										
	REM/VC		SNOKE SPECIAL PRODUCTS	853	HIGHWAY 69 NORTH, JACKSONVILLE	VOCS, METALS, TPH	10/27/1998	0B	5	E
CHILDRESS										
	REM/CA		TEXAS DEPT OF TRANSPORTATION (CHILDRESS MAINTENANCE FACILITY	F0482	1711 AVENUE B SW, CHILDRESS 79201	CHLOROFORM	10/9/1999	0A	2	EQ
	REM/PST		BRIDGES CHEVRON	113452	110 AVENUE F NW, CHILDRESS	GASOLINE, DIESEL	9/15/1998	5B	2A	E,Q
			JOE TARRANT OIL CO 62	97222	701 AVENUE F NE, CHILDRESS	DIESEL, GASOLINE	5/12/1990	5B	2A	E,Q
			KWIK PANTRY FFP 351	108723	HWY 287 @ HWY 62, CHILDRESS	GASOLINE	10/13/1994	5B	4	E,Q
		*	TARRANT 63	119742	1000 AVENUE F NW, CHILDRESS	GASOLINE	9/14/2015	5B	2A	E,Q
			TAYLOR FOOD MART 31	110920	400 AVENUE F NE, CHILDRESS	UNKNOWN	4/12/1996	5B	2A	E,Q
	REM/VC		BURLINGTON NORTHERN RAILROAD - CHILDRESS	417	100 12TH STREET NW, CHILDRESS	CHLORINATED SOLVENTS	12/13/1996	0B	1	E
CLAY										
	REM/CA		HENRIETTA RELEASE AREA 2 (MAGELLAN MIDSTREAM PARTNERS)	T2978	BROWN ROAD AND HIGHWAY 287/82, HENRIETTA	BTEX, TPH	5/22/2012	2C	3	E,Q
	REM/PST		ALLSUPS 174	112932	301 E OMEGA ST, HENRIETTA	GASOLINE	1/27/1998	5B	2A	E,Q
			REED OIL CO	113893	705 MAIN ST, BYERS	GASOLINE	12/14/1998	5B	2A	E,Q
			WAGON MASTER TRUCK STOP	96382	505 US HIGHWAY 287, BELLEVUE	GASOLINE	8/1/1990	5B	2A	E,Q
COCHRAN										
	REM/PST		FORMER GASOLINE STATION	109426	102 N MAIN ST, MORTON	GASOLINE	1/31/1995	5B	2A	E,Q
	WQD/WQAS		CITY OF MORTON	WQ0010226001	1 MILE NORTHEAST OF STATE HIGHWAY 214 AND FARM-TO-MARKET ROAD 1780, NORTHEAST OF THE CITY OF MORTON	NITRATE	10/13/2005	3A,B	5	E,Q
COLLIN										
	REM/CA		EXIDE FRISCO BATTERY RECYCLING PLANT	30516	7471 5TH ST, FRISCO 75034	METALS	9/2/2014	3	2	E, Q, V
			MCKINNEY METALS (SCRAP METAL YARD)	F0074	341 E VIRGINIA ST, MCKINNEY 75069	TPH, VOCS	2/11/1998	3B	5	E
	REM/DCRP	*	DRY CLEAN SUPER CENTER	DC0284	10045 CUSTER RD, PLANO	CHLORINATED SOLVENTS	9/8/2016	5B	0	
			PREMIER DRY CLEAN EXPRESS	DC0256	601 W PARKER RD STE 112, PLANO	CHLORINATED SOLVENTS	11/19/2014	5B	2A	E
			STAR CLEANER	DC0259	6916 INDEPENDENCE PKWY, STE 101, PLANO	CHLORINATED SOLVENTS	4/8/2015	5B	2A	E
	REM/PST	*	7 ELEVEN STORE 32723	119997	4001 W SPRING CREEK PKWY, PLANO	GASOLINE	1/14/2016	2	6	E,Q
			7 ELEVEN STORE 36416	119490	3301 K AVE, PLANO	DIESEL	3/25/2014	1B	1A	E,Q
		*	7 ELEVEN STORE 36419	119717	3300 CUSTER RD, PLANO	GASOLINE	12/17/2014	2	2A	E,Q
		*	BOBCAT KUNTRY STOP & GO	119992	204 E PECAN ST, CELINA	GASOLINE	5/27/2016	2	2A	E,Q
			FORMER LL GROCERY GARAGE	91130	116 E AUDIE MURPHY PKWY, FARMERSVILLE	UNKNOWN	10/20/1986	1B	1A	E,Q
			PDQ QUICK TRACK	118801	2312 STATE HIGHWAY 121, MELISSA	GASOLINE	3/5/2012	2	2A	E,Q
		*	SHELL GRANDYS OF PLANO	120048	8601 OHIO DR, PLANO	GASOLINE, DIESEL	7/12/2016	2	2A	E,Q
		*	SHELL PTC	119403	2000 DALLAS PKWY, PLANO	UNKNOWN	4/16/2014	2	6	E,Q
	REM/VC		605 COMMERCE STREET	2757	605 COMMERCE ST STE 200, WYLIE	VOCS, CHLORINATED SOLVENTS	7/6/2015	0B	3	E
			EXIDE TECHNOLOGIES J PARCEL	2541	N OF DALLAS NORTH TOLLWAY & S OF HICKORY ST, FRISCO	VOCS, CHLORINATED SOLVENTS	12/7/2012	0B	4	E
		*	FORMER DRY CLEAN SUPER CENTER	2843	1020 W PARK BLVD, PLANO	CHLORINATED SOLVENTS	11/8/2016	0B	1A	E
			HUTSON INDUSTRIES, INC	944	100 HUTSON DRIVE, FRISCO	VOCS	3/11/1999	0B	6	E
		*	PSC PLANO CAMPUS	2480	2300 W PLANO PKWY, PLANO	CHLORINATED SOLVENTS, METALS, VOCS	3/26/2012	0B	1A	E
			TENTH STREET INDUSTRIES	1601	901 10TH STREET, PLANO	CHLORINATED SOLVENTS	6/13/2003	0B	4	E
			WATTLEY PARK PROPERTY	1258	1/4 MILE SOUTH OF US 380, MCKINLEY	SOLVENTS	9/14/2000	0B	5	E

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COLLIN										
	REM/VCIO									
		*	SASKAWAY PROPERTY	999	910 10TH ST / 880 AVE F, PLANO	CHLORINATED SOLVENTS	4/15/2016		1B	E
			TOWNEPLACE SUITES & HOTEL	989	HWY 190 & K AVE	CHLORINATED SOLVENTS	1/20/2016		6	E
		*	VALWOOD 44	1022	1644 W CROSBY RD, CARROLLTON	CHLORINATED SOLVENTS	7/27/2016		6	E
	WPD/MSW									
			NORTH TEXAS MUNICIPAL WATER DISTRICT LANDFILL (PRE-SUBTITLE D ONLY)	MSW00044A	1 MILE S OF FM 544 BETWEEN HOOPER ROAD AND MAXWELL CREEK ROAD/ DEWITT ROAD	MW-4, 12: VOCS (BENZENE; CHLOROBENZENE; 1,4-DICHLOROBENZENE; CIS-1,2-DICHLOROETHYLENE)	12/31/2004	2B	2B	E,Q,V2
			NORTH TEXAS MUNICPAL WATER DISTRICT LANDFILL (PRE-SUBTITLE D AND SUBTITLE D)	MSW00568A	500 OLD MILL RD MCKINNEY TX 75069	MW-18: METALS; MW-10Q: VOCS (CIS-1,2-DICHLOROETHYLENE)	10/11/2012	2B	2B	E,Q,V2
COLLINGSWORTH										
	REM/CA									
			TXDOT (WELLINGTON MAINTENANCE FACILITY)	F0430	WELLINGTON	TPH	12/5/2002	3B	4	EQV2
	REM/PST									
			HOLTON OIL CO	103223	1101 8TH ST, WELLINGTON	GASOLINE	5/26/1992	5B	2A	E,Q
			LUCKY CORNER	112917	1500 HOUSTON, WELLINGTON	GASOLINE	1/21/1998	5B	4	E,Q
COLORADO										
	WPD/MSW									
			ALTAIR DISPOSAL SERVICES LLC LANDFILL (PRE-SUBTITLE D AND SUBTITLE D)	MSW00203A	2 MILES N OF ALTAIR ON W SIDE OF STATE HIGHWAY 71	MW-11, 12, 14, 20: METALS (BARIUM, COBALT)	3/18/2016	2B	2B	E,Q,V2
COMAL										
	REM/PST									
			ENVIRONMENTAL IMPACT	118048	UNKNOWN, NEW BRAUNFELS	UNKNOWN	8/20/2007	5B	6	E,Q
		*	FORMER 7 ELEVEN STORE 36256	119586	106 FM 306, NEW BRAUNFELS	GASOLINE	10/31/2014	2	2A	E,Q
			PARKSIDE MART	119516	486 LANDA ST, NEW BRAUNFELS	GASOLINE	8/7/2014	1B	1A	E,Q
		*	SAC N PAC 601	119429	14580 RIVER RD, NEW BRAUNFELS	GASOLINE	5/27/2014	2	2A	E,Q
			SAC N PAC 602	119443	10390 FM 2673 RD, CRANES MILL	GASOLINE	12/19/2013	2	2A	E,Q
			TIGER TOTE 2	119690	1081 IH 35 E, NEW BRAUNFELS	GASOLINE	5/22/2015	1B	1A	E,Q
	WPD/MSW									
			MESQUITE CREEK LANDFILL (PRE-SUBTITLE D AND SUBTITLE D)	MSW00066B	1000 KOHLENBERG RD, NEW BRAUNFELS TX 78130	MW-02A: VOCS (1,1-DICHLOROETHANE; CIS-1,2-DICHLOROETHYLENE)	7/27/2011	2B	2B	E,Q,V2
COMANCHE										
	REM/PST									
			FORMER CT AUTO FUEL 2	113871	512 W NAVARRO AVE, DE LEON	UNKNOWN	4/10/2012	2	4	E,Q
CONCHO										
	REM/PST									
			BOBS TEXACO	114684	277 N ROBERTS ST, PAINT ROCK	GASOLINE	7/14/1999	2	2A	E,Q
			EDEN SELF SERVE STATION	110863	106 E BROADWAY ST, EDEN	GASOLINE	4/23/1996	5B	2A	E,Q
			TRES AMIGOS CONVENIENCE STORE 2	115719	502 W BROADWAY, EDEN	UNKNOWN	5/2/2003	1B	1A	E,Q
COOKE										
	REM/PST									
		*	LAKE KIOWA GENERAL STORE	119815	100 KIOWA DR W STE 100, GAINESVILLE	DIESEL, GASOLINE	11/20/2015	2	2A	E,Q
		*	LAKEWAY GROCERY	119784	7750 E US HIGHWAY 82, GAINESVILLE	GASOLINE	8/12/2015	2	5	E,Q
	REM/VC									
			ALAN RICHEY PROPERTY	2661	2300 NORTH IH-35, GAINSVILLE	VOCS, SVOCS, METALS, TPH	3/26/2014	OB	3	E
	WPD/MSW									
			CITY OF GAINESVILLE LANDFILL (PRE-SUBTITLE D ONLY)	MSW00302	N OF FM 902 2.5 MILE E OF FM 902 AND FM 373 INTERSECTION IN COOKE COUNTY	MW-2: CHLOROBENZENE	12/31/2005	2B	2B	E,Q,V2
CORYELL										
	REM/CA									
			MCGREGOR NAVAL WEAPONS INDUSTRIAL RESERVE	30056	22145 ARNOLD CIR, WACO 20670	ORGANICS, INORGANICS	3/1/1993	3A	5	E,Q,V2

TABLE 1
GROUNDWATER CONTAMINATION CASE DESCRIPTION BY COUNTY
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

COUNTY	DIVISION	NEW CASES	FILE NAME	FILE NUMBER	LOCATION	CONTAMINATION DESCRIPTION	DATE	ENFORCEMENT STATUS		DATA QUALITY §5.236
DALLAS										
	WPD/MSW		HUTCHINS LANDFILL (PRE-SUBTITLE D ONLY)	MSW01236A	1.75 MILE E NE OF IH 45 AND IH 20 INTERSECTION 750 FEET S OF IH 20 E END LANGDON DR	MW-10A, 11A: VOCS (CHLOROBENZENE; 1,4-DICHLOROBENZENE); MW-11A: VOCS (BENZENE)	6/24/2011	2B	2B	E,V2
			MCCOMMAS BLUFF LANDFILL (PRE-SUBTITLE D AND SUBTITLE D)	MSW00062	5100 YOUNGBLOOD ROAD AND MCCOMMAS BLUFF	MW-2: VOCS (CHLOROBENZENE); MW-3, 11: METALS (ARSENIC)	12/31/2004	2B	2B	E,Q,V2
			TRINITY OAKS LANDFILL (PRE-SUBTITLE D ONLY)	MSW00556	7 MILES S OF MESQUITE 0.5 MILE SE OF INTERSECTION OF INTERSTATE HIGHWAY 635 AND US HIGHWAY 175				6C	E,Q,V2
DAWSON										
	REM/CA		TEXAS DEPT OF TRANSPORTATION (LAMESA MAINTENANCE FACILITY)	F0493	1613 A N HIGHWAY 87, LAMESA 79331	1,2-DIBROMOETHANE, BENZENE, PENTACHLOROPHENOL, METALS	8/19/1998	2A	5	EQV2
	REM/PST		CHAPA GULF SERVICE	94305	411 N BRYAN AVE, LAMESA	GASOLINE	12/12/1989	5B	4	E,Q
			DEER 66	94199	909 N 4TH ST, LAMESA	GASOLINE	11/28/1989	5B	4	E,Q
			H E MORRIS	94390	802 S DALLAS AVE, LAMESA	GASOLINE	12/14/1989	5B	4	E,Q
			J M SHAMROCK	92553	611 N 4TH ST, LAMESA	GASOLINE	1/30/1989	5B	4	E,Q
			JOHNSONS 66 STATION	93850	1102 N DALLAS AVE, LAMESA	UNKNOWN	9/20/1989	5B	4	E,Q
			LAMESA 66 TRUCK STOP	108399	HIGHWAY 87 SOUTH, LAMESA	GASOLINE	7/8/1994	5B	2A	E,Q
			MCS MINI MART	96331	701 S DALLAS AVE, LAMESA	GASOLINE	7/6/1990	5B	4	E,Q
			SERVICE STATION	92112	211 S DALLAS AVE, LAMESA	GASOLINE	8/25/1988	5B	2A	E,Q
	REM/VC		BULK FERTILIZER FACILITY - LAMESA	2415	125 NORTH 22ND STREET, LAMESA	VOCS, SVOCS, METALS, CHLORINATED SOLVENTS, TPH, PCBS	7/15/2011	0B	4	E
	REM/VCIO		LAMESA DOLLAR GENERAL	947	1006 NORTH 4TH STREET, LAMESA	VOCS, SVOCS	1/13/2015		6	E
	WPD/MSW									
DAWSON			CITY OF LAMESA LANDFILL (PRE-SUBTITLE D AND SUBTITLE D)	MSW00517A	1 MILE S INTERSECTION OF FM 827 AND US HIGHWAY 87 ON COURT C STREET	MW-5A: METALS (COBALT); MW-14A: METALS (ARSENIC, VANADIUM)	9/25/2008	2B	2B	E,Q,V2
DEAF SMITH										
	REM/PST		CONSUMERS FUEL CORP	105059	116 E NEW YORK ST, HEREFORD	GASOLINE	8/20/1992	5B	2A	E,Q
			TAYLOR PETROLEUM 14	97992	401 E 1ST ST, HEREFORD	GASOLINE	2/8/1991	5B	2A	E,Q
	WQD/WQAS		HERFORD BY-PRODUCTS	WQ0001300000	APPROX 3.5 MI SW OF HERFORD ON HWY 60, 4.2 MI, SW OF INTX OF FM RD 1057 AND HWY 60	NITRATE, TOTAL DISSOLVED SOLIDS	10/12/2004	3A	4,5	E
DELTA										
	REM/PST		ABANDONED STATION	115745	930 E DALLAS AVE, COOPER	UNKNOWN	5/27/2003	1B	1A	E,Q
DE WITT										
	REM/PST		SLICK SHELL LANTZ	119623	102 E BROADWAY ST, CUERO	GASOLINE, WASTE OIL	12/17/2014	1B	1A	E,Q
		*	TIGER TOTE 7	119699	608 US HIGHWAY 77A N, YOAKUM	GASOLINE, DIESEL	5/22/2015	2	2A	E,Q
DENTON										
	REM/CA		FORMER HERITAGE CLEANERS LEWISVILLE	72894	1310 WEST MAIN STREET, LEWISVILLE 75067	MTBE, PCE, TCE, CIS-1,2 DCE, VINYL CHLORIDE	3/8/1996	2C	4	E,Q
	REM/DCRP		SAFETY KLEEN CORP	65124	1722 COOPER CREEK RD, DENTON 76208	DIESEL	1/22/1988	1B	5	E,Q
			BAUMGART FAMILY CLEANERS	DC0047	2216 LONG PRAIRIE ROAD, FLOWER MOUND	CHLORINATED SOLVENTS	8/25/2006	5B	0	
		*	BEST 1HR CLEANERS	DC0281	2717 N ELM ST, DENTON	CHLORINATED SOLVENTS	6/6/2016	5B	2A	E
			COMET CLEANERS - DENTON	DC0152	507 WEST UNIVERSITY DRIVE	CHLORINATED SOLVENTS	4/17/2008	5B	0	
		*	FMR APPARREL CLEANERS	DC0275	2488 MEADOWGLEN DR, LEWISVILLE	CHLORINATED SOLVENTS	5/11/2016	5B	2A	E

TABLE 4 (APPENDIX B)
HISTORIC GROUNDWATER CONTAMINATION CASE DESCRIPTION BY COUNTY
ALL AGENCIES, 1994-2015

COUNTY	AGENCY	DIVISION	SECTION	FILE NAME	FILE NUMBER	LOCATION	CONTAMINATION DESCRIPTION	ENFORCEMENT STATUS		YEAR DELETED
COLLIN	TCEQ	REM	DCRP	CUFF AND COLLAR CLEANERS	DC0156	1405 JUPITER ROAD	CHLORINATED SOLVENTS	0B, 2B	6C	2011
				FMR? USA CLEANERS - PLANO	DC0120	2912 LEGACY DRIVE	CHLORINATED SOLVENTS	5B, 2B	6C	2010
				SUMMERSIDE CLEANERS	DC0101	17475 PRESTON ROAD, DALLAS	CLORINATED SOLVENTS	2B, 5B	6C	2011
				TOWN AND COUNTRY CLEANERS - PLANO	DC0189	2070 W SPRING PKWY, STE 346	CHLORINATED SOLVENTS	2B, 5B	6C	2012
				VILLAGE CREEK SHOPPING CENTER FORMER PLANO CLEANER	DC0059	6150 INDEPENDENCE PARKWAY, PLANO	CHLORINATED SOLVENTS	2B	6C	2009
			VC	BENT TREE SHOPPING CENTER	747	17610 MIDWAY ROAD, DALLAS	CHLORINATED SOLVENTS	0B	6C	2015
				PRAIRIE CREEK VILLAGE SHOPPING CENTER	2606	2963 WEST 15TH STREET, PLANO	VOCS, CHLORINATED SOLVENTS	0B	6D	2015
			VC/VCP	BERKELEY SQUARE SHOPPING CENTER	1399	4621 WEST PARK BLVD, PLANO	CHLORINATED SOLVENTS	0	6C	2001
				BERKELEY SQUARE SHOPPING CENTER	537	4622 WEST PARK BLVD, PLANO	CHLORINATED SOLVENTS	0	6C	2001
				PARK PAVILLION SHOPPING CENTER	772	2001 COIT ROAD, PLANO	VOCS		6D	2004
				PARKWOOD SQUARE SHOPPING CENTER	918	300 CUSTER ROAD, PLANO	CHLORINATED SOLVENTS	0	6C	2002
				PITTMAN CORNERS	915	SWC 15TH AND CUSTER ROAD, PLANO	CHLORINATED SOLVENTS	0	6C	2001
				SEC FM 720 AND PRESTON ROAD (FRISCO)	660	SEC FM 720 & PRESTON ROAD, FRISCO	TPH, BTEX	0	6C	2000
				SECURITY STORAGE	501	1919 WEST 15TH STREET, PLANO	TPH		6C	
				VACANT TRACT OF LAND/ARAP AHO AND QUORUM	204	SWC ARAPAHOE AND QUORUM, ADDISON	TPH, PETROLEUM HYDROCARBONS		6C	
		WPD	MSW	121 REGIONAL DISPOSAL LANDFILL	MSW02294	CITY OF ANNA IS N AND CITY OF MELISSA IS W; THE RDF IS NOT WITHIN CITY LIMITS OF EITHER	MW-4: NICKEL, ZINC	2B	6C	2010
				CITY OF WYLIE: MW-12 AND 13	MSW00712	0.5 MI SE OF INTERSECTION OF STATE HWY 78 & FM 2514, WYLIE	VOCS (TOLUENE)	2A	6C	1998
				NORTH TEXAS MUNICPAL WATER DISTRICT LANDFILL	MSW00568A	500 OLD MILL RD MCKINNEY TX 75069		2B	6C	2012
COLORADO	RRC	OIL & GAS	9	LESLIE HEINSOHN COMPLAINT	03-5007	8 MILES NW OF COLUMBUS	SODIUM CHLORIDE	1C	6C	2000
	TCEQ	WPD	MSW	ALTAIR DISPOSAL SERVICES LLC LANDFILL (PRE-SUBTITLE D AND SUBTITLE D)	MSW00203A	2 MILES N OF ALTAIR ON W SIDE OF STATE HIGHWAY 71			6C	2015
COMAL	TCEQ	WAD	GPAT	USGS FREON PLUME STUDY		5 WELLS (68-22-801, 68-22-805, 68-23-304, 68-30-215, & 68-30-312) AND 2 SPRINGS (68-15-901 & 68-23-304) IN COMAL COUNTY	CCL3F (FREON)	1	6C	2006
COMANCHE	RRC	OIL & GAS		EXXONMOBILE REFINING AND SUPPLY CO	DCP#3033	FORMER DELEON STATION	BTEX, TPH	0	5C	2013
			7B	UNIDENTIFIED	7B-7401	5 MILES NORTHWEST OF DUSTER	BENZENE IN GW WELL	5	6C	2003
	TCEQ	WAD	GPAT	TDA PESTICIDE SURVEY	4105505	WELL NO 41-05-505 (SAMPLE 1171-91-003) "COMANCHE 31"	METOLACHLOR	2D	5C	2006
				TDA PESTICIDE SURVEY	4105508	WELL NO 41-05-508 (SAMPLE REP 2) "COMANCHE 9"	2,4,5-T	2D	5C	2006
COOKE	RRC	OIL & GAS	9	CREED COMPLAINT	OCP# 1675	4 MILES NW OF MUENSTER, COOKE COUNTY	NACL	5	5C	2005
	TCEQ	REM	VC	SOUTHLAND PAINT COMPANY	904	1101 SOUTHLAND DRIVE, GAINESVILLE	VOCS, SVOCS, CHLORINATED SOLVENTS, TPH	0B	6D	2015
			VC/VCP	GAINESVILL E MUNICIPAL AIRPORT - 2	758	2300 BONNAVILLA, ROUTE 2, BOX 3416, GAINESVILLE	TPH	0	6C	1999
		WPD	MSW	CITY OF GAINESVILL E: MW-8A AND MW-9	MSW00302	ON FM 902, 2.5 MI E OF FM 372, GAINESVILLE	TDS, CL, VOCS.	2A	6C	1996

TABLE 4 (APPENDIX 8)
HISTORIC GROUNDWATER CONTAMINATION CASE DESCRIPTION BY COUNTY
ALL AGENCIES, 1994-2015

COUNTY	AGENCY	DIVISION	SECTION	FILE NAME	FILE NUMBER	LOCATION	CONTAMINATION DESCRIPTION	ENFORCEMENT STATUS		YEAR DELETED
COOKE	TCEQ	WPD	MSW	CITY OF GAINESVILLE LANDFILL	MSW00302	N OF FM 902 2.5 MILE E OF FM 902 AND FM 373 INTERSECTION IN COOKE COUNTY	MW-2: VOCS (CHLOROBENZENE); MW-3R: VOCS (1,4-DICHROLOBENZENE)		6C	2013
CORYELL	TCEQ	WPD	MSW	FORT HOOD LANDFILL	MSW01866	WEST ON HWY 90 (W FT HOOD EXIT), RIGHT ON CLARK RD, AT DEAD END OF CLARK RD	MW-8: 1,1-DICHLOROETHANE	7B	6C	2010
CRANE	RRC	OIL & GAS		SHELL PIPELINE COMPANY	OCP#1052	PENWELL PUMP STATION, 15 MI S OF PENWELL	CRUDE	0	6C	2011
			8	EDWARDS RANCH WATER FIELD		10 MILES SE OF MONAHANS	NACL	0	6C	1998
CROCKETT	RRC	OIL & GAS		DUKE ENERGY (FORMERLY UPRC)	OCP#1203	OZONA GAS PLANT, 1 MI S OF OZONA	HYDROCARBONS	0	6C	2011
			7C	BELVAN GAS PLANT - MONITORING WELL	7C-1756	20 MILES NW OF OZONA	OIL	1C	6C	1995
				EMERALD UNDERGROUND WATER DIST	7C-1961	25 MILES WEST OF OZONA	CRUDE OIL	1C	6C	2000
				KOCH MIDSTREAM SERVICES (SID RICHARDSON)	OCP# 1474	6 MILES SOUTH OF MCCAMEY	BTEX	0	6C	2003
CROSBY	RRC	OIL & GAS	8A	PRICE THOMAS COMPLAINT		5 MILES SOUTH OF CAP ROCK	CHLORIDES	1C	6C	1999
				RIVERA COMPLAINT	8A-3475	20 MILES NORTH OF POST	CHLORIDES	1C	6C	1998
	TCEQ	WAD	GPAT	COOP TNRCC/TWDB	2313606	WELL NO 23-13-606 (SAMPLE NO 2313606) (2313606)(CONE WSC]	ATRAZINE	1B	6C	2006
CULBERSON	TCEQ	WSD	PDW	GMNP - PINE SPRINGS	550014		ALKANES, BTEX, BENZENES, BUTANES, HEXANES, HYDROCARBONS, PENTANES, TOLUENE		6C	1999
				GMNP - PINE SPRINGS	G0550014A	1- CAMPGROUND	ALKANES, BTEX, BENZENES, BUTANES, HEXANES, HYDROCARBONS, PENTANES, TOLUENE		6E	2000
DALLAM	TCEQ	WSD	PDW	DALHART MUNICIPAL WATER SYSTEM	560001		BTEX, MTBE, BENZENES, BUTANES, PENTANES, PROPANES		6C	1999
				DALHART MUNICIPAL WATER SYSTEM	G0560001B	17 - EAST CEMETERY	BENZENE, XYLENES, MTBE, TICS	2C	6C	2010
				DALHART MUNICIPAL WATER SYSTEM	G0560001F	21- TRINIDAD / AMARILLO ST	BTEX, MTBE, BENZENES, BUTANES, PENTANES, PROPANES		6C	2000
DALLAS	TCEQ	ENF	ENF	GNB INC - FARMERS BRANCH	31697	1880 VALLEY VIEW RD, FARMERS BRANCH	CONTAMINATION NOT FOUND	4B	6C	1997
		REM	CA	AVIALL SERVICES INC	30430	6114 FOREST PARK RD, DALLAS 75235	JET FUEL, TCE, HALOCARBONS	0	SD	2002
				DAL- CHROME COMPANY INC	65246	3044 MORRELL ST, DALLAS 75216	NICKEL,CHROMIUN	0	6D	2001
				RATHON (DIVERSEY CHEM CO - DUBOIS)	30602	CENTRAL FREEWAY @ RIVER OAKS, DALLAS	VOC	C3	6C	2000
			DCRP	BELL CLEANERS	DC0053	9215 MIDWAY ROAD, DALLAS	CHLORINATED SOLVENTS/HYDROCARBONS	5B	8C	2011
				FAST QUALITY CLEANERS	DC0100	1544 S BUCKNE	CHLORINATED SOLVENTS	5B	8C	2013
				FISHBURNS CLEANERS	DC0122	6029-6041 FOREST LANE	CHLORINATED SOLVENTS	2B	6C	2009
				FMR DRY CLEANER	DC0193	708 W SPRING VALLEY RD	CHLORINATED SOLVENTS	5B	6C	2015
				GALAXY CLEANERS	DC0164	1403 N BELT LINE RD	CHLORINATED SOLVENTS	5B	6C	2014

TABLE 4 (APPENDIX B)
HISTORIC GROUNDWATER CONTAMINATION CASE DESCRIPTION BY COUNTY
ALL AGENCIES, 1994-2015

COUNTY	AGENCY	DIVISION	SECTION	FILE NAME	FILE NUMBER	LOCATION	CONTAMINATION DESCRIPTION	ENFORCEMENT STATUS		YEAR DELETED
DENTON	TCEQ	REM	CA	GNB TECHNOLOGIES INC	30516	7471 S 5TH ST, FRISCO 75034	LEAD, CADMIUM, PH	3A	6E	2002
			DCRP	FORMER COTTAGE CLEANERS	DC0067	2636 FRANKFORD ROAD, DALLAS	CHLORINATED SOLVENTS	2B, 5B	6C	2009
			VC	100 & 306 N LOOP 288	2694	100 & 306 NORTH LOOP 288, DENTON	MTBE, TOLUENE, BARIUM, ARSENIC, CHROMIUM, MERCURY, LEAD, M,P-XYLENE	0B	6D	2015
				CLEM'S YE OLDE HOMESTEAD FARMS, LTD.	2294	1639 PARKER ROAD, CARROLLTON	CHLORINATED SOLVENTS,TPH	0B	6D	2015
				FLOWER MOUND CROSSING	2363	2608 FLOWER MOUND ROAD, FLOWER MOUND	VOCS, TPH	0B	6D	2015
				FORMER GASOLINE/AUTOMOTIVE SERVICE STATION	2605	111 MAIN STREET, LITTLE ELM	VOCS, METALS, PESTICIDES	0B	6D	2015
			VC/BSA	FREEDOM OIL PROPERTY	G045	NWC HENRIETTA CREEK RD AND HIGHWAY 377, ROANOKE	TPH, PCBS		6C	
			VC/IOP	WILLOW RIDGE APARTMENTS	112	797 SOUTH OLD ORCHARD, LEWISVILLE	CHLORINATED SOLVENTS, MTBE	0	6D	2000
			VC/VCP	HENRIETTA CREEK ROAD SITE	519	5800-5900 BLOCK OF HENRIETTA CREEK ROAD,ROANOKE	VOCS	0	6C	2000
				SACK N SAVE	473	1500 IH 35E @ AVENUE C, DENTON	TPH, BTEX, METALS	0	6C	2002
				TEXAS NEW MEXICO POWER COMPANY	668	792 EAST MAIN STREET, LEWISVIL LE	TPH, VOCS, SVOCS, PHENOLS		6C	2004
				THE DENTON- RECORD CHRONICLE	1286	314 EAST HICKORY STREET, DENTON	VOCS, SVOCS, CHLORINATED SOLVENTS	0	6C	2001
				VALLEY SQUARE SHOPPING CENTER	803	724 WEST MAIN STREET, LEWISVILLE	CHLORINATED SOLVENTS		6C	
		WPD	MSW	CAMELOT LANDFILL (CITY OF FARMERS BRANCH)	MSW01312A	0.8 MI S OF SH 121, N OF ELM FORK TRINITY RIVER, 1.5 MI W OF FM 2281, HEBRON	MW-10: VOCS (CIS- 1,2-DICHLOROETHYLENE; TRICHLORO ETHYLENE; VINYL CHLORIDE)	2A	6C	1999
DEWITT	RRC	OIL & GAS	2	PG & E GAS TRANSMISSION	OCP# 1612	ARMSTRONG GAS PLANT	HYDROCARBONS	0	6C	2003
DUVAL	RRC	OIL & GAS		EL PASO MERCHANT ENERGY	OCP#2443	SAN DIEGO STATION LOCATED AT W NORTH AVE AND N ST JAMES ST SAN DIEGO	TPH	0	6C	2015
EASTLAND	RRC	OIL & GAS		BP RANGER STATION	OCP# 2198	LAT 32.4375 LONG -98.7125 (COUNTY ROAD 465)	HYDROCARBONS	0	6C	2009
			7B	DEVON GAS SERVICES LP	OCP#3105	HAMBY PROPERTY	TPH, BTEX, PSH	0	6C	2014
				SCURLOCK PERMIAN		1.5 MILES NORTHWEST OF GORMAN	CRUDE OIL	2	6C	1998
				SCURLOCK PERMIAN PIPELINE CORP	7B-4494	1.5 MILES NW OF GORMAN	CRUDE OIL	1C	6C	1996
				UNIDENTIFIED	7B-7595	1 MILE EAST OF NIMROD	SW IN WATER WELL	2	6C	2004
				UNIDENTIFIED / PIONEER CITY	7B-4986	DOMESTIC WELLS IN/AROUND CITY OF PIONEER	NACL	5	6C	2005
	TCEQ	WSD	PDW	CITY OF RISING STAR	G06700057	7 OF 9 WELLS	PROMETON	2C	6C	2001
				RISING STAR ISD	G0670029A	1-HIGH SCHOOL	PROMETON	2C	6C	2001
ECTOR	RRC	OIL & GAS	8	TEXACO EXPL & PROD	OCP# 1802	MCKNIGHT	PSH ON GROUNDWATER	1C	6C	2003
	TCEQ	REM	CA	BJ SERVICES COMPANY USA	32316	2505 W 2ND ST, ODESSA 79763	TPH,BTEX	2B	6D	2004
				MONARCH RCD SERVICE	39986	153 MOSS AVENUE, ODESSA	NAPHTHA, LEAD	3	6C	2000
			SSDAP	EAST 57TH STREET GROUNDWATER	FILED BY SITE NAME	409 E 57TH STREET, ODESSA	ARSENIC, VANADIUM, 1,2-DICHLOROETHANE	5A	6C	2013
				OLD RELIABLE PLATING SHOP	FILED BY SITE NAME	2035 W 2ND STREET, ODESSA, TX	ARSENIC, BARIUM	5B	6C	2015
				RELIABLE MACHINE AND SUPPLY	FILED BY SITE NAME	2125 W 2ND STREET, ODESSA	ALUMINUM, ARSENIC, CHROMIUM, VANADIUM	5B	6C	2014

TABLE 2
GROUNDWATER CONTAMINATION CASE DESCRIPTION BY COUNTY
RAILROAD COMMISSION OF TEXAS

COUNTY	DIVISION	NEW CASES	SITE NAME	FILE NUMBER	OPERATOR OR LOCATION	LAT	LONG	CONTAMINATION DESCRIPTION	ENFORCEMENT STATUS		DATA QUALITY
COMAL	OIL & GAS		HEARNE PIPELINE RIGHT OF WAY	OCP 4833	CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY	29.7437	-98.0514	TPH, BTEX	1D	4	E,Q,V,2
COMANCHE	OIL & GAS	*	GOLDEN PEANUT FACILITY, ROUT 2 FM 1496, COMYN, TX	OCP 4816	EXXONMOBIL PIPELINE CO	32.0696	-98.4646	TPH, BTEX, PSH	1A	4	E,Q,V,0
COOKE	OIL & GAS		TOM DANGLEMYER COMPLAINT	CU 64790	DANGLE FIELD, 5 MILES SOUTH OF MUENSTER	33.5794	-97.3567	NATURAL GAS	2	3	E,Q,V,2
CRANE	OIL & GAS		BLOCK 31 GAS PLANT	OCP 1132	OXY USA (FORMERLY BP, ATLANTIC RICHFIELD COMPANY, ARCO PERMIAN)	31.4414	-102.4609	TPH, BTEX, PSH, PCB	0	5	E,Q,V,2
			BUTLER COMPLAINT	COMP 9558	LEA (SAN ANDRES) FIELD, 10 MILES WEST OF CRANE	31.4164	-102.5347	CHLORIDE	1C	2B	E,Q,V,2
			CRANE GATHERING STATION	OCP 4823	ENTERPRISE PL, (FORMERLY CRANE GATHERING STATION GROUP)	31.4335	-102.4384	TPH	0	4	E,Q,V,2
			CRANE STATION	OCP 1989	PLAINS MARKETING, L.P.	31.4243	-102.3273	TPH	0	5	E,Q,V,2
			SANDHILLS COMPRESSOR STATION	OCP 1456	KINDER MORGAN, INC	31.4931	-102.5803	TPH, BTEX, PAH, PSH	0	4	E,Q,V,2
			SANDHILLS FIELD FORMER GAS PLANT	OCP 1292	EXXONMOBIL CORP. (FORMERLY EXXON CO. USA)	31.4608	-102.6166	TPH, BTEX, GLYCOL	0	5	E,Q,V,2
		*	SANDHILLS GATHERING PIPELINE RELEASE	OCP 5078	PLAINS ALL AMERICAN PIPELINE	32.4536	-102.7642	BTEX	1B	4	E,Q,V,2
			W.A. ESTES #100 WELL	OCP 2423	CHEVRONTEXACO EXPLORATION AND PRODUCTION, INC	31.4545	-102.7623	BTEX, CHLORIDE	2D	3	E,Q,V,2
			WADDELL COMPRESSOR STATION	OCP 1842	KINDER MORGAN, INC	31.5247	-102.4453	TPH, BTEX, PSH	0	5	E,Q,V,2
CROCKETT	OIL & GAS		PECOS RIVER RELEASE (LIVE OAK TO IRAAN 12" PIPELINE)	OCP 2324	PLAINS PIPELINE L.P.	30.8027	-101.8306	TPH	0	4	E,Q,V,2
			SOUTHWEST OZONA GAS PLANT (7C-0022)	OCP 1210	DUKE ENERGY FIELD SERVICES (FORMERLY UPR)	30.4475	-101.4672	TPH, BTEX	0	4	E,Q,V,2
DAWSON	OIL & GAS		BREEDLOVE TO MUNGERVILLE #2 SITE, KLONDIKE, TX	OCP 2328	PLAINS ALL AMERICAN	32.5669	-101.9347	TPH, BTEX, PSH	0	5	E,Q,V,2
DEWITT	OIL & GAS		CROZIER TO H SISTERS - 6" GATHERING LINE RUPTURE	OCP 5029	BHP BILLITON	29.1127	-97.5811	PSH	1A	4	E,Q,V,2
			DAGG 2 FIELD DEHYDRATOR	OCP 1254	ENERGY TRANSFER COMPANY (FORMERLY HPL/AEP/ENRON)	29.1186	-96.9939	TPH, BTEX	0	6C	E,Q,V,2
		*	H SISTERS 6" PIPELINE CONDENSATE RELEASE	OCP 5065	BHP BILLITON	29.0900	-97.4994	TPH, BTEX, PSH, NATURAL GAS	0	4	E,Q,V,2
		*	IMMENHAUSER 6" PIPELINE CONDENSATE RELEASE	OCP 5066	BHP BILLITON	29.1652	-97.4403	TPH, BTEX, PSH, NATURAL GAS	0	4	E,Q,V,2
			STEINMANN A1H 8-IN NATURAL GAS PL	OCP 5092	BHP BILLITON	29.2518	-97.3007	TPH, BTEX, PSH	1B	3	E,Q,V,2
			TERRYVILLE DEHYDRATOR STATION	OCP 1169	SOUTHCROSS ENERGY (FORMERLY CROSS-TEX ENERGY SERVICES)	29.1625	-97.0611	TPH, BTEX	1A	4	E,Q,V,2
			ZENGERLE #3 AND #4 BLOWOUT RESPONSE	OCP 3089	APACHE CORP.	28.9803	-97.2892	NATURAL GAS	2	4	E,Q,V,2
DUVAL	OIL & GAS		DUVAL COUNTY FACILITY	OCP 5017	ANIMAS HOLDING LLC	27.7139	-98.6277	BTEX, AS	1C	4	E,Q,V,2
EASTLAND	OIL & GAS		CARSON RANCH OIL SEEP	OCP 2179	CHEVRON ENVIRONMENTAL MANAGEMENT CO. (FORMERLY TEXAS CO.)	32.4994	-98.6539	TPH	2	4	E,Q,V,2
			RANGER STATION	OCP 5000	MARATHON OIL CO	32.4364	-98.7164	TPH	0	3	E,Q,V,2

ATTACHMENT B

Newspaper Articles Concerning Water Conservation

STAR LOCAL MEDIA

STVA

McKinney Courier Gazette

AFFIDAVIT OF PUBLICATION

I, Nick Souders, Inside Sales Manager of the McKinney Courier Gazette, a newspaper printed in the English language in Collin County, State of Texas, do hereby certify that this notice was Published in the McKinney Courier Gazette on the following dates, to-wit

McKinney Courier Gazette **07/23/17** **1 Insertion**

Ten Ways To Curb Water Use	$220.00
(Description)	(Cost)

Inside Sales Manager of the McKinney Courier Gazette

Subscribed and sworn on this

25 day of July, 2017

Notary Public, State of Texas

JONI CRAGHEAD
Notary Public, State of Texas
Comm. Expires 03-14-2020
Notary ID 124650232

North Texas Groundwater Conservation District: Ten ways to curb your water use while still maintaining a green and vibrant landscape.

1. **Adjust your sprinklers so that they're watering your lawn and garden, and not the street or sidewalk.**
2. **Water early in the morning (before 10a.m) or later in the evening (after 6 p.m.) when temperatures are cooler and evaporation is minimized.**
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Paid advertisement by North Texas Groundwater Conservation District

NORTH TEXAS GROUNDWATER

Acct #100172400

Ad #1625084

THE STATE OF TEXAS
The County of Denton

Chris Brumfield

Being duly sworn (s)he is the Publisher/authorized designee of the Denton Record-Chronicle, in City of Denton/surrounding areas in Denton County; Newspaper of general circulation which has been continuously and regularly published for a period of not less than one year preceding the date of the attached notice, and that the said notice was published in said newspaper on the following dates.

PUBLIC NOTICE ENTITLED: 10 WAYS TO CURB YOUR WATER USE

PUBLISHED AS 3 COLUMNS BY 4 INCH AD IN MAIN SECTION OF DENTON RECORD-CHRONICLE ON THURSDAY, JULY 20, 2017 AT A TOTAL COST OF $438

JILL K. HAMMOND
Notary Public
State of Texas
ID # 683555-2
My Comm. Expires 01-05-2020

Subscribed and sworn to before me this 16 day of AUGUST 2017
Witness my hand and official seal

Notary Public, Denton, County, Texas

Poll: Negotiate on 'Obamacare,' don't just kill it

By Emily Swanson
and Ricardo Alonso-Zaldivar
Associated Press

WASHINGTON — Americans overwhelmingly want lawmakers of both parties to work out health care changes, with only 13 percent supporting Republican moves to repeal "Obamacare" absent a replacement, according to a new poll.

Although a deep partisan divide endures over the 2010 Affordable Care Act, people may be less far apart on what policymakers should try next, says the Associated Press-NORC Center for Public Affairs Research survey.

In the poll, 8 in 10 said Republicans should approach Democrats with an offer to negotiate if the current GOP overhaul effort fails, rather than sticking with their own "repeal and replace" campaign of the past seven years. And nearly 9 in 10 said Democrats should take Republicans up on such an offer.

The poll was conducted as the GOP's plan floundered in the Senate during the past week.

A foundation for common ground seems to be this: Nearly everyone wants changes to the Obama law, while hardly anyone wants to see it abolished without a substitute in place. The Congressional Budget Office said Wednesday the GOP repeal of Obama health law without replacement means 32 million more uninsured by 2026.

Among Democrats, only 22 percent actually want the ACA kept just as it is; 64 percent want it kept but with changes. Among Republicans, 27 percent want immediate repeal, while 54 percent favor repealing the law when a replacement is ready.

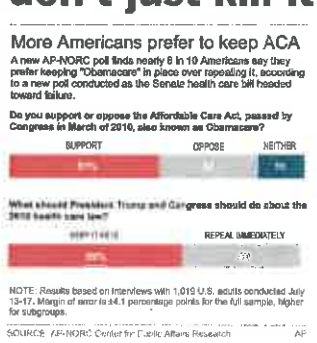
"Since we are a nation that's founded on compromise, I don't see why we can't compromise on this," said Valoee Cox, a retired high school history teacher in Big Spring, He votes Republican, but says with his party in control of Washington, "they should act like grown-ups."

Republicans including President Donald Trump and Senate Majority Leader Mitch McConnell have recently pushed the notion of repealing as much of "Obamacare" as possible, then figuring out a replacement later. That's not what the public wants, the poll found.

"When they talk about repeal and not replacing, that scares me half to death," said Andrea Martin of Taylor, Michigan. Disabled and dealing with diabetes and other health complications, Martin is keenly sensitive to deep Medicaid cuts proposed by Republicans. That "would just totally destroy me," she said. "I'd just go downhill."

Former President Barack Obama's law extended coverage to some 20 million people, reducing the nation's uninsured rate to a historic low of about 9 percent. But it was passed without a single Republican vote and has faced entrenched opposition ever since.

The law's private insurance markets are shaky in many areas, with premiums rising and insurers exiting due to financial losses. The law's Medicaid expansion has worked more smoothly, but 19 states still refuse it, amid debates about costs and the government's role in health care.



Dean Lewins, AAP Image/AP

Family and friends gather on Sydney's Freshwater Beach, Wednesday following a candlelight vigil, where they threw hundreds of pink flowers into the ocean for Justine Damond, who was shot by a Minneapolis police officer last weekend.

Police officer has yet to talk to investigators after shooting

By Amy Forliti
and Steve Karnowski
Associated Press

Damond Noor

MINNEAPOLIS — Four days after a Minneapolis police officer fatally shot a woman who had called 911 to report a possible rape, the officer has yet to talk with investigators, and his attorney has given no indication he ever will.

Some legal experts say the move is wise and well within the officer's rights. But without Officer Mohamed Noor's version of events, there's virtually no explanation for what happened Saturday when he fired a shot from the passenger seat of a squad car, past his partner in the driver's seat and killed Justine Damond, 40, who was standing outside the vehicle.

Details that have emerged raised new questions Wednesday about whether proper police procedures were followed.

According to the state Bureau of Criminal Apprehension, Noor's partner, Officer Matthew Harrity, told investigators he was driving in the alley with all of the vehicle's lights off when he was startled by a loud noise, which authorities did not describe. Harrity said Damond appeared at the driver's side window "immediately afterward" and Noor fired, striking her in the abdomen. She died at the scene.

Television station KSTP, citing a source it did not name, said the two officers thought they were being targeted for an ambush when they heard a pounding noise on the driver's side. Noor had his gun on his lap, the station reported.

The Minnesota Bureau of Criminal Apprehension did not confirm the KSTP report. Harrity's attorney, Fred Bruno, told the *Star Tribune* it was "certainly reasonable" for the officers to fear a possible ambush.

Assistant Police Chief Medaria Arradondo said an internal use-of-force investigation has been opened, which is standard any time an officer discharges a weapon. The police chief has asked that the review be expedited, but much of the information needed is in the hands of state investigators.

Police did not respond to questions Wednesday about the internal investigation. Noor's attorney, Thomas Plunkett, did not respond to interview requests from The Associated Press.

When it comes to talking to authorities, defense attorneys and legal experts said police officers have the same Fifth Amendment right against self-incrimination as everyone else.

"Any lawyer that would recommend to him that he should give a statement to the BCA should be disbarred," said Joe Friedberg, a Minneapolis defense attorney who's not involved in the case. "Nobody should ever speak to law enforcement when they're the subject of a criminal investigation."

The police department's internal affairs unit can compel Noor to give a statement as part of its own investigation, and fire him if he refuses, but that statement cannot be used against him in any criminal investigation, Friedberg said.

In contrast, Officer Jeronimo Yanez in the nearby suburb of St. Anthony sat down with state agents last summer the day after he shot Philando Castile. Prosecutors used his statement as evidence against him during his manslaughter trial, but the defense used it too. Jurors apparently accepted Yanez's claims that he saw Castile's gun and believed his life was in danger. Yanez was acquitted.

It's also possible that Noor isn't ready to talk because he's still dealing with the trauma of having killed Damond.

Marsh Halberg, another defense attorney not involved in the case, said he always tells his clients not to talk.

"I have six words of advice: shut up, shut up, shut up. That's what I tell them. Because you can always tell your story later," Halberg said.

Trump campaign inner circle called before committees

By Mary Clare Jalonick
Associated Press

WASHINGTON — Members of the Trump campaign's inner circle, including his eldest son and son-in-law, are being called before Senate committees next week to talk about the 2016 election.

The week has the potential to deliver the most high-profile congressional testimony involving the Russian meddling probes since former FBI Director James Comey appeared in June.

Donald Trump Jr. is scheduled to appear July 26 before the Senate Judiciary Committee along with former campaign chairman Paul Manafort, according to a witness list released by the panel Wednesday.

Also, a lawyer for Trump's powerful son-in-law and adviser said Jared Kushner will speak to the Senate intelligence committee Monday.

"As Mr. Kushner has been saying since March, he has been and is prepared to voluntarily cooperate and provide whatever information he has on the investigations to Congress," said attorney Abbe Lowell. "He will continue to cooperate and appreciates the opportunity to assist in putting this matter to rest."

That meeting will apparently take place behind closed doors.

Alan Futerfas, a lawyer for Trump Jr., did not immediately respond to a request seeking comment about his scheduled testimony. Manafort spokesman Jason Maloni said Manafort received the request Wednesday afternoon and is reading it over.

The three men will almost certainly be asked about their attendance at a June 2016 meeting with a Russian lawyer. That gathering was arranged via emails that advertised it would reveal damaging information about Hillary Clinton.

The lawyer, Natalia Veselnitskaya, also said Wednesday she was ready to testify before the U.S. Senate and "clarify the situation."

The meeting raised new questions about the Trump campaign's possible ties to Moscow, which are being scrutinized by federal and congressional investigators. These questions have only intensified as the identities of other Russia-connected participants have become known.

"I am ready to clarify the situation behind the mass hysteria, but only through lawyers or testifying in the Senate," Veselnitskaya said in an interview broadcast Wednesday on Kremlin-funded RT television.

"If the Senate wishes to hear the real story, I will be happy to speak up and share everything I wanted to tell Mr. Trump," she added. That appeared to be a reference to Veselnitskaya's previous statement that the meeting with Trump Jr. focused on U.S.-Russian adoption policies and a U.S. sanctions law.

Veselnitskaya has denied working for the Russian government. She has not responded to repeated attempts by The Associated Press to reach her for comment.

BRIEFLY
ACROSS THE NATION

Washington

Doctors: Sen. John McCain has brain tumor

Doctors say Arizona Sen. John McCain has a brain tumor associated with a blood clot that was removed last week.

In a statement late Wednesday, doctors reveal that McCain has been diagnosed with glioblastoma, an aggressive cancer. The statement says the 80-year-old senator and his family are reviewing further treatment, including a combination of chemotherapy and radiation.

Justices allow refugee ban, grandparents OK

The Supreme Court says the Trump administration can strictly enforce its ban on refugees, but at the same time is leaving in place a weakened travel ban that includes grandparents among relatives who can help visitors from six mostly Muslim countries get into the U.S.

The justices acted Wednesday on the administration's appeal of a federal judge's ruling last week. U.S. District Judge Derrick Watson ordered the government to allow in refugees formally working with a resettlement agency in the United States. Watson also vastly expanded the family relations that refugees and visitors can use to get into the country.

Mariposa, Calif.

Fire races near Yosemite

A surging wildfire raced through California mountains and foothills west of Yosemite National Park on Wednesday.

The 4-day-old blaze nearly doubled in size overnight the California Department of Forestry and Fire Protection said.

— The Associated Press

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State of Texas

County of Cooke

AUG 14 2017

GTUA

Before me, the undersigned, on this day personally appeared Mark Armstrong, the Editor, of the Gainesville Daily Register, a newspaper having general circulation in Cooke 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(s), to wit: July 20, 2017

Mark Armstrong, Editor

Subscribed and sworn to before me this 11 day of August, 20 17.

TERESIA L. TEEL
Notary Public, State of Texas
Comm. Expires 03-21-2021
Notary ID 131052769

Notary Public in and for the State of Texas

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safety, cattle and beef quality, environmental stewardship, animal handling and well being, needle and syringe selection, proper injection technique, vaccine handling and residue avoidance.

Lunch will be served at noon and the training will conclude around 2 p.m.

To attend, RSVP by calling 800-242-7820 or 940-668-5412.

Caregiver Support Group meeting

The monthly meeting of the Caregiver Support Group will be at noon on Thursday in Wesley Hall of Whitesboro First United Methodist Church.

A potluck lunch will begin the session followed by separate gatherings for the caregivers and the care-receivers.

Each of the small groups will meet either with a pastor or a Stephen Minister, who is a lay person specially trained to be a listener for someone who is on a difficult journey.

The Caregiver Support Group is informal and open to anyone who provides care for another person, those who receive care from another person, or who are the support person for either the caregiver or the receiver.

For more information about the Caregivers Support Group, please feel free to contact the church office at 903-564-3156 or email lindabaggett@whitesborofumc.org.

Whitesboro United Methodist Church is at 122 S. Union St. and Wesley Hall is on the east side of the building.

Grief support group meets Thursday

Home Hospice of Grayson, Cooke and Fannin Counties announced the return of The Journey Through Grief support group.

The group will meet from 5:30 to 7:30 p.m. on Thursday. Kelly Lamkin will lead the group in discussing topics such as "surviving the fog" and "finding the new normal."

The group will meet at the Home Hospice Offices at 316 S. Chestnut St.

The final session will be this

are encouraged to bring a lunch and drinks. The day is being conducted with Noble Research Institute.

For more information contact Cooke County Agrilife Extension Agent Marty Morgan at 940-668-5412 or email marty.morgan@ag.tamu.edu.

Group continues 'Life After Homeschool' sessions

Texas.

For more information, including speaker biographies, search the event "Life After Homeschool: July Session" on Facebook, or visit RRCH.org.

Event is free and open to the public.

Texoma Area Churches of Christ family cookout

The Texoma Area Churches of Christ will host a Family Cookout

Gainesville Civic Center between 8 a.m. and 5 p.m. Monday through Friday or call for more information 940-668-4530.

Gainesville Daily Register

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ATTACHMENT C

Presentations to Public by General Manager

Presentation to GTUA Board of Directors
December 18, 2017

RED RIVER
GROUNDWATER CONSERVATION DISTRICT

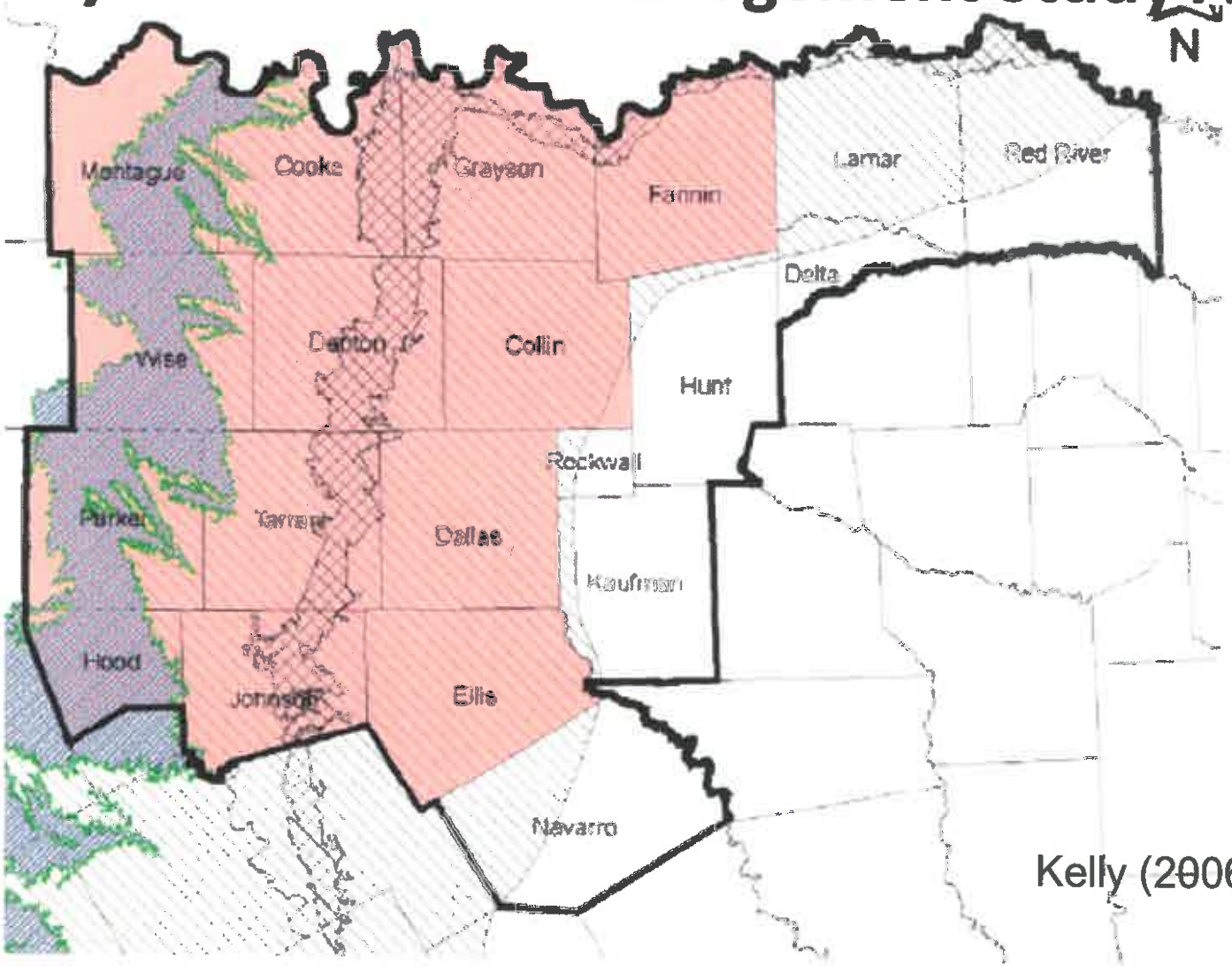
NTGCD

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

Creation of groundwater districts in North Central Texas

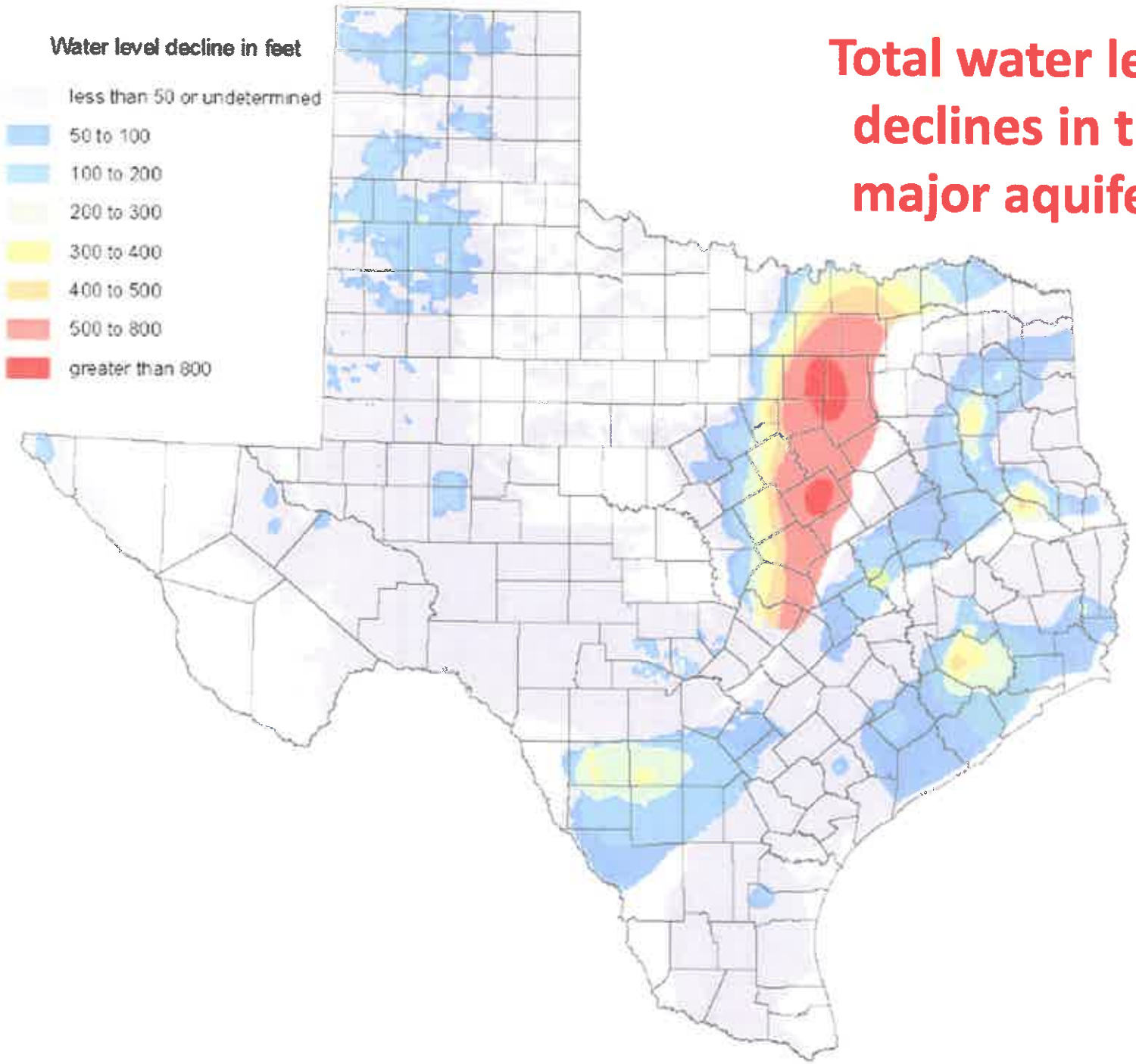
- In 1997 Senate Bill I, enacted by the Texas Legislature, confirmed that "groundwater conservation districts... are the state's preferred method of groundwater management through rules developed, adopted and promulgated by a district..."
- In 2007 the Texas Commission on Environmental Quality issued a report advising one or more groundwater conservation districts would need to be created in the 13-county area of North Central Texas, including Collin, Cooke, Denton, Fannin and Grayson Counties

North Texas
Priority Groundwater Management Study Area



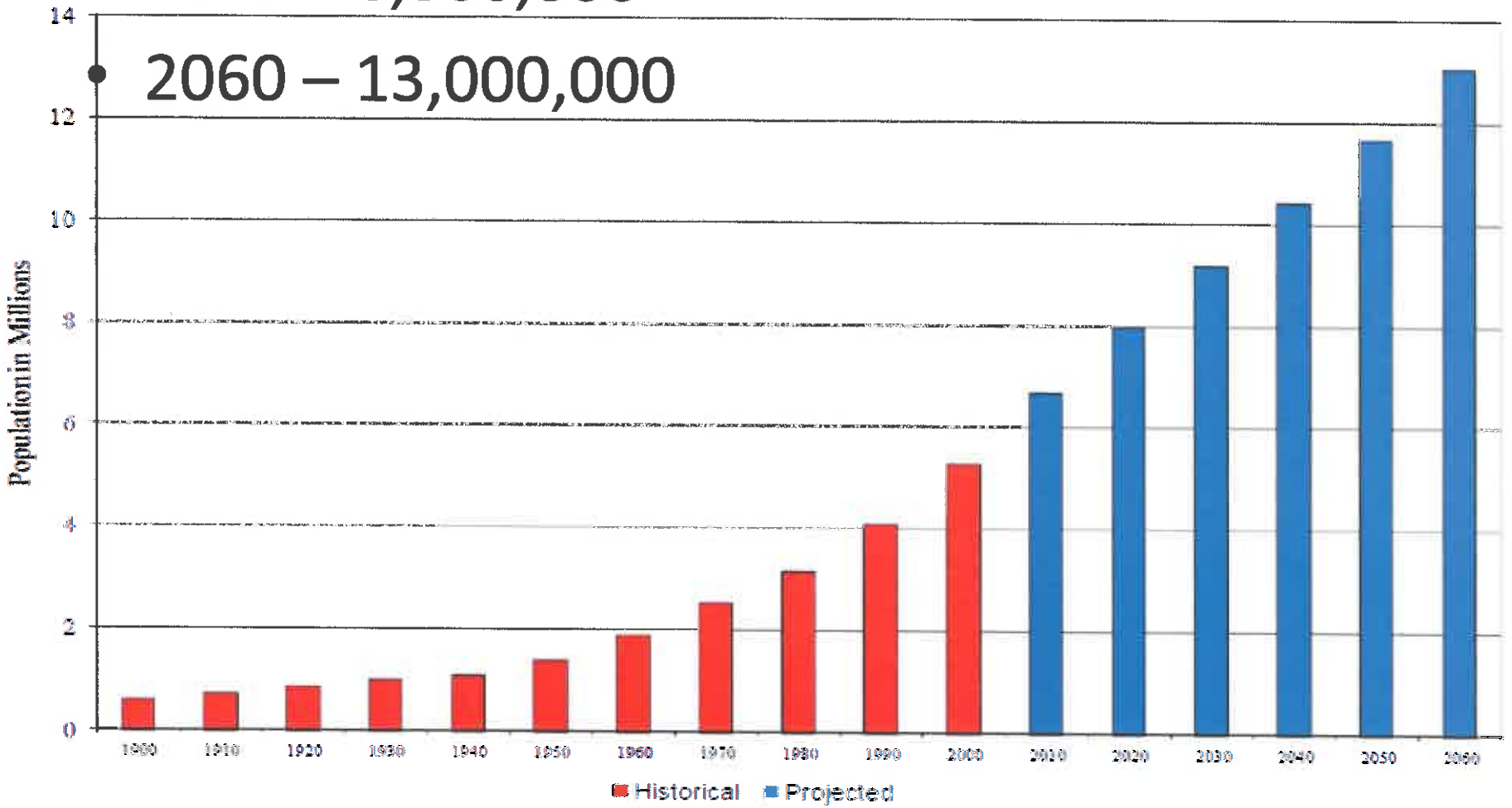
Kelly (2006; TCEQ)

Total water level declines in the major aquifers



Population Growth in Region C

- 2010 – 6,300,000
- 2060 – 13,000,000



Population Growth in GCDs

	North Texas GCD										
	Historical			Projections						Add'l residents	% Growth from
	1990	2000	2010	2020	2030	2040	2050	2060	2070	from '20 to '70	'20 to '70
Collin	264,036	491,774	782,341	956,716	1,116,830	1,363,229	1,646,663	1,853,878	2,053,638	1,096,922	115%
Cooke	30,777	36,363	38,437	42,033	45,121	48,079	53,532	64,047	96,463	54,430	129%
Denton	273,525	432,976	662,614	901,645	1,135,397	1,348,271	1,576,424	1,846,314	2,090,485	1,188,840	132%
Total	568,338	961,113	1,483,392	1,900,394	2,297,348	2,759,579	3,276,619	3,764,239	4,240,586	2,340,192	123%

	Red River GCD										
	Historical			Projections						Add'l residents	% Growth from
	1990	2000	2010	2020	2030	2040	2050	2060	2070	from '20 to '70	'20 to '70
Grayson	95,021	110,595	120,877	134,785	148,056	164,524	185,564	250,872	344,127	209,342	155%
Fannin	24,804	31,242	33,915	38,346	43,391	52,743	69,221	101,915	138,497	100,151	261%
Total	119,825	141,837	154,792	173,131	191,447	217,267	254,785	352,787	482,624	309,493	179%

About the Red River Groundwater Conservation District

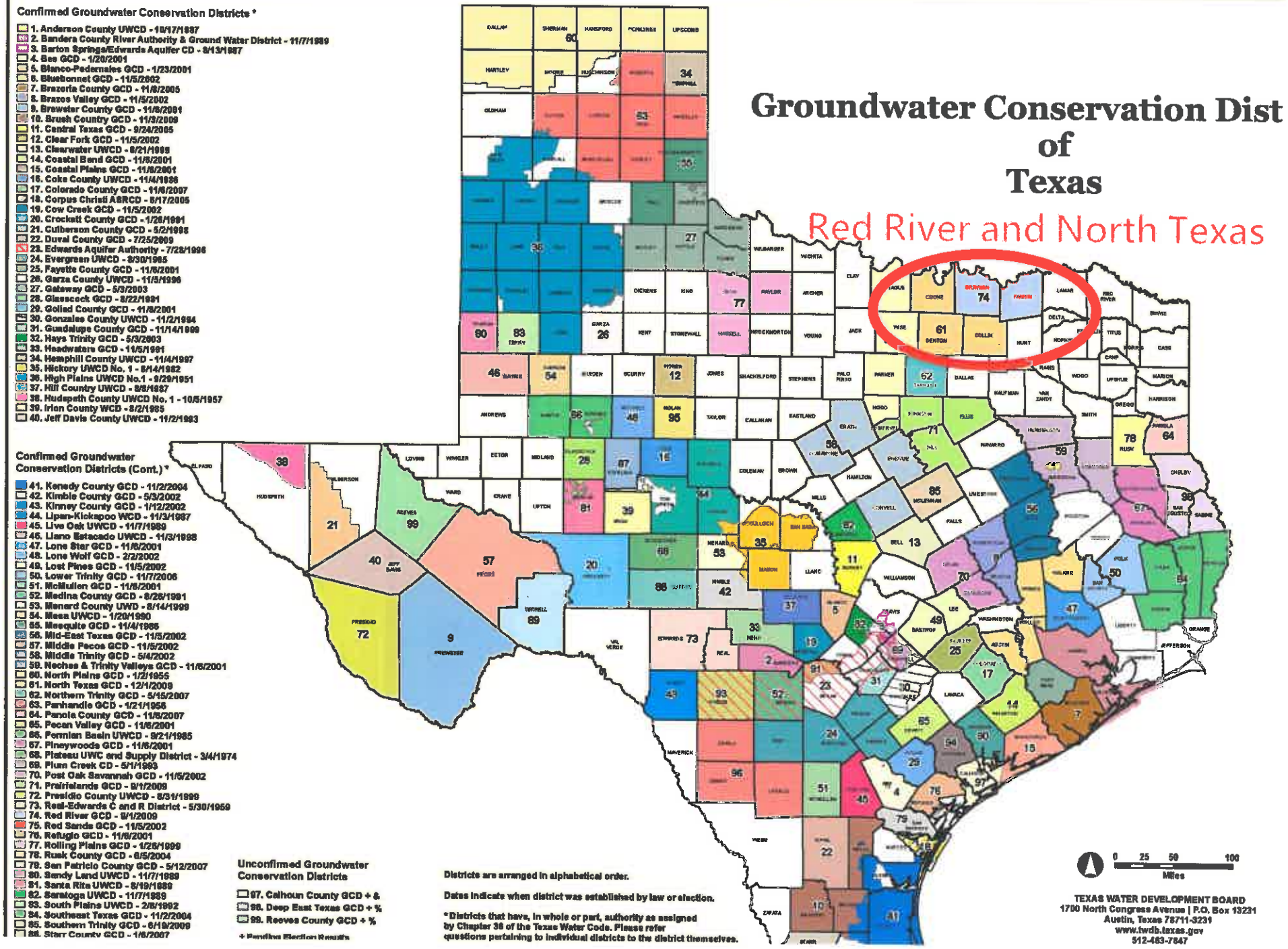
- Red River Groundwater Conservation District was created May 25, 2009 by Senate Bill 2529 for Fannin and Grayson Counties
- Three Directors are appointed by Fannin County and four Directors are appointed by Grayson County for a total of seven Directors on the Board of Directors
- The District entered into a Management Agreement with the GTUA to provide management and staffing for the District beginning in 2011.

About the North Texas Groundwater Conservation District

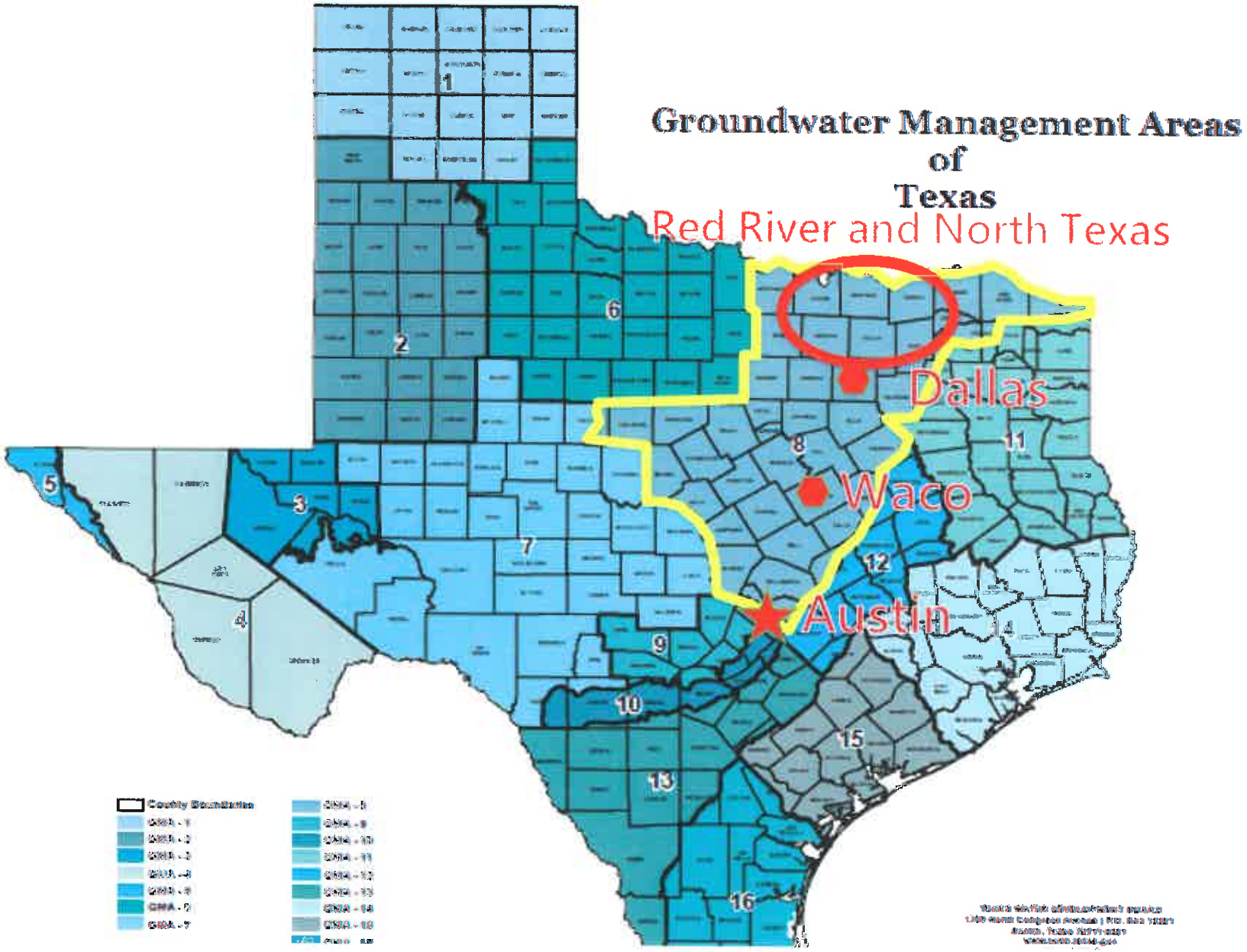
- North Texas Groundwater Conservation District was created May 27, 2009 by Senate Bill 2497 for Collin, Cooke and Denton Counties
- 3 Directors are appointed by each participating County for a total of nine Directors on the Board of Directors
- The District entered into a Management Agreement with the GTUA to provide management and staffing for the District beginning in 2011.

Groundwater Conservation Dist of Texas

Red River and North Texas



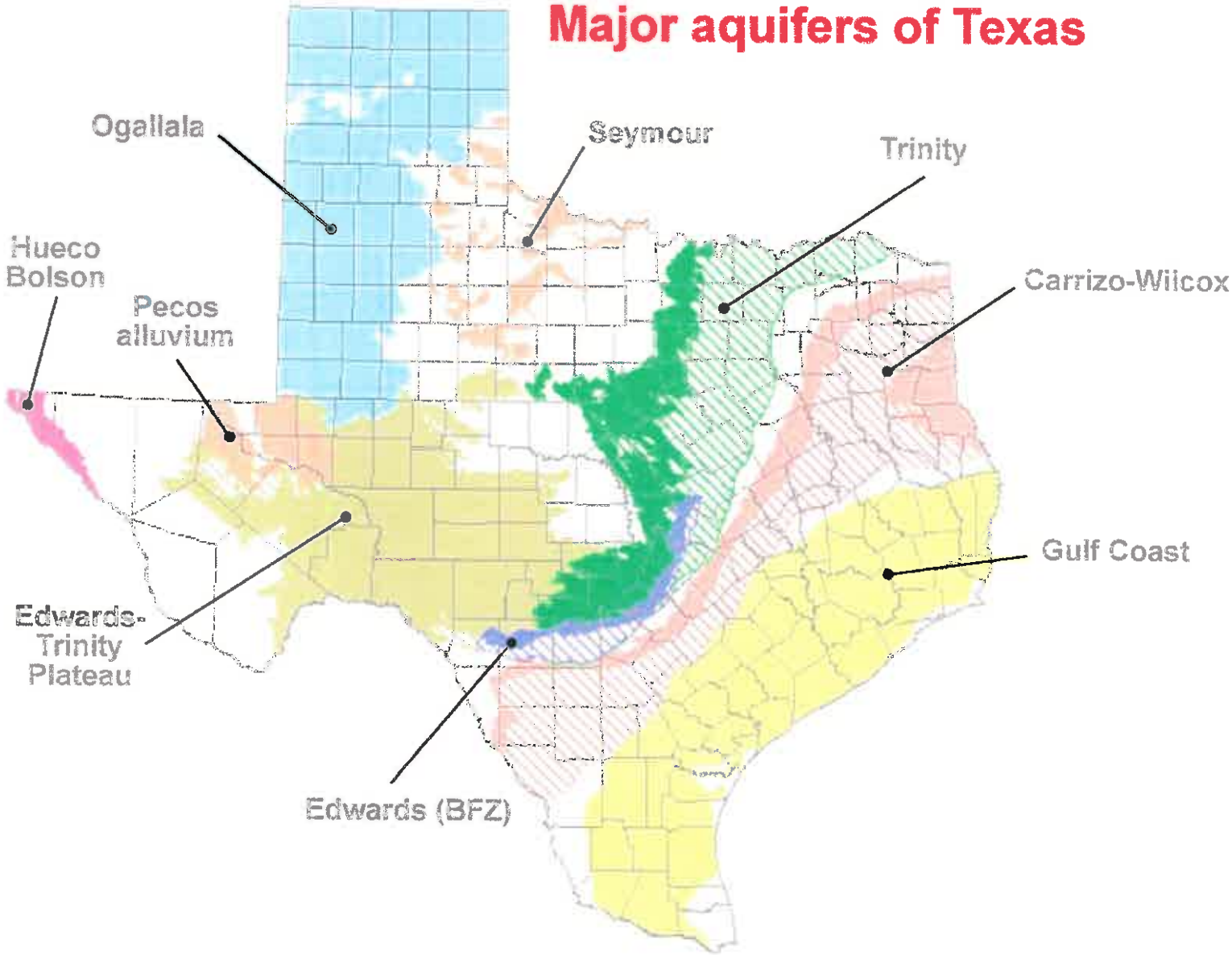
Joint Planning – GMAs map

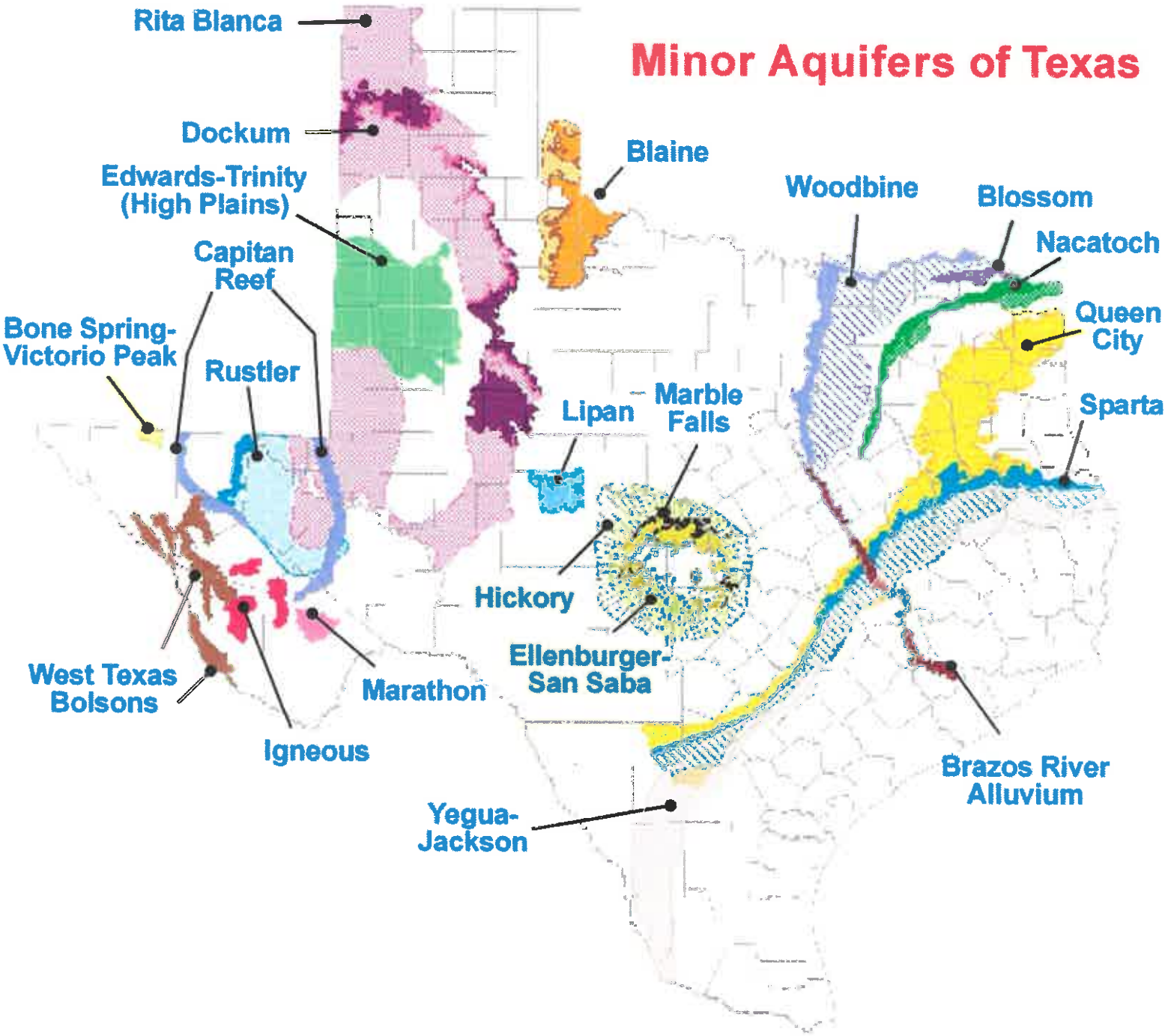


Desired Future Conditions

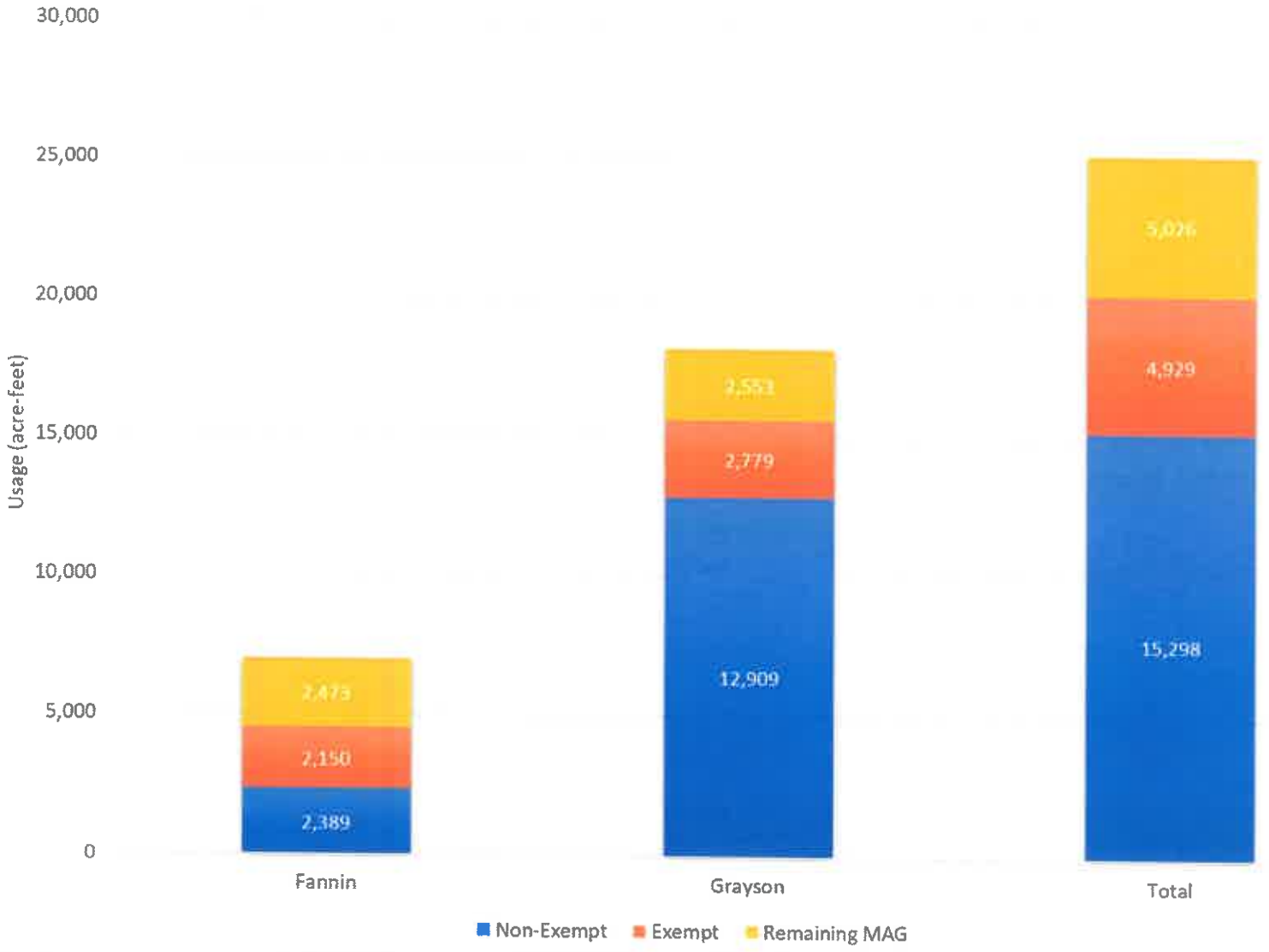
- Way of determining how much water is available to be used by well owners
- On April 1,2016, the GMA 8 voted to established a DFC
- GAM determines the amount of groundwater in the aquifer and the DFC is the amount of water that will be left in 50 years. The difference is the amount that can be used

Major aquifers of Texas

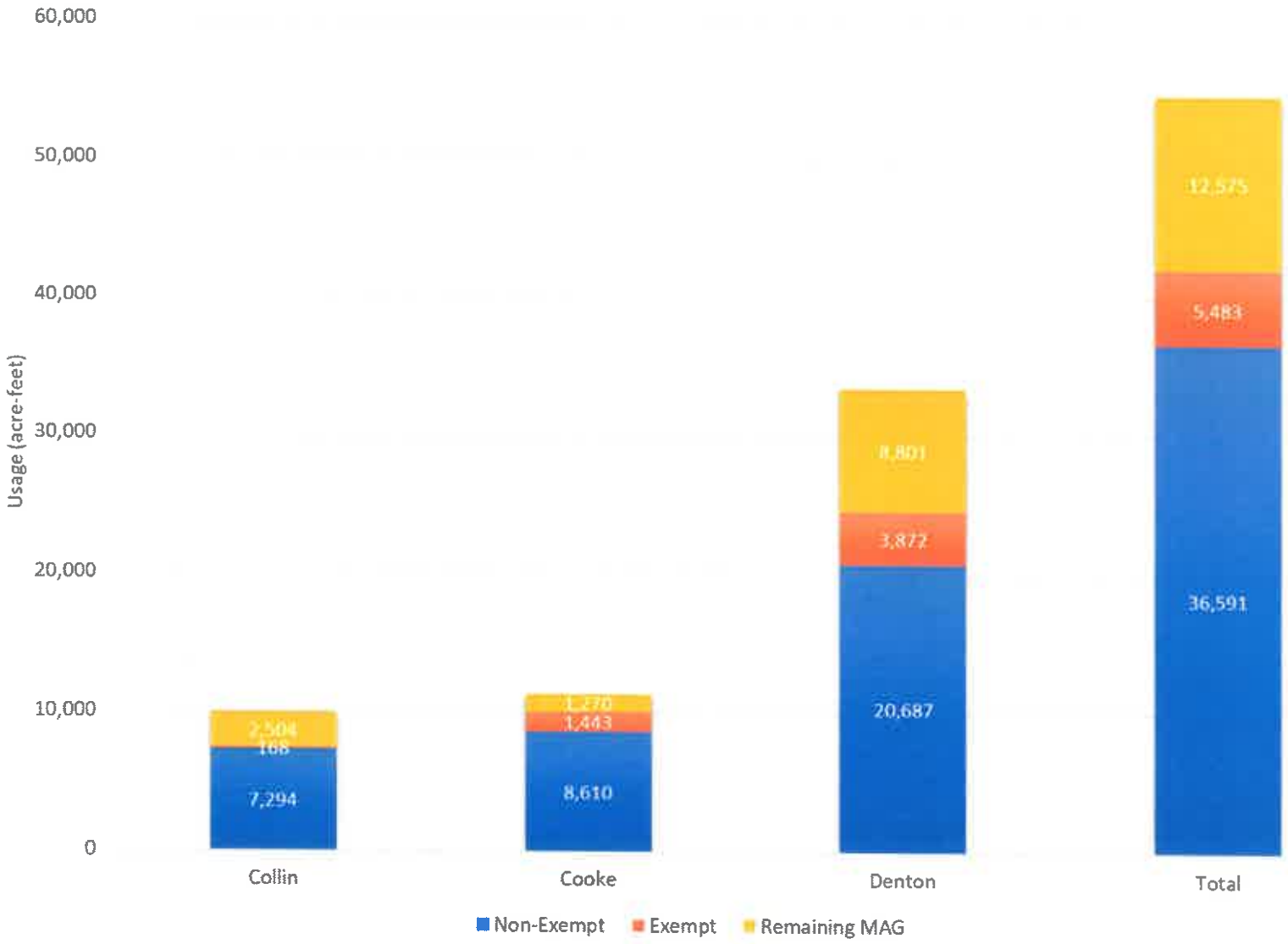



Minor Aquifers of Texas
Rita Blanca
Dockum
Edwards-Trinity (High Plains)
Capitan Reef
Bone Spring-Victorio Peak
Rustler
Blaine
Lipan
Marble Falls
Hickory
Ellenburger-San Saba
West Texas Bolsons
Marathon
Igneous
Yegua-Jackson
Woodbine
Blossom
Nacatoch
Queen City
Sparta
Brazos River Alluvium

Red River DFC

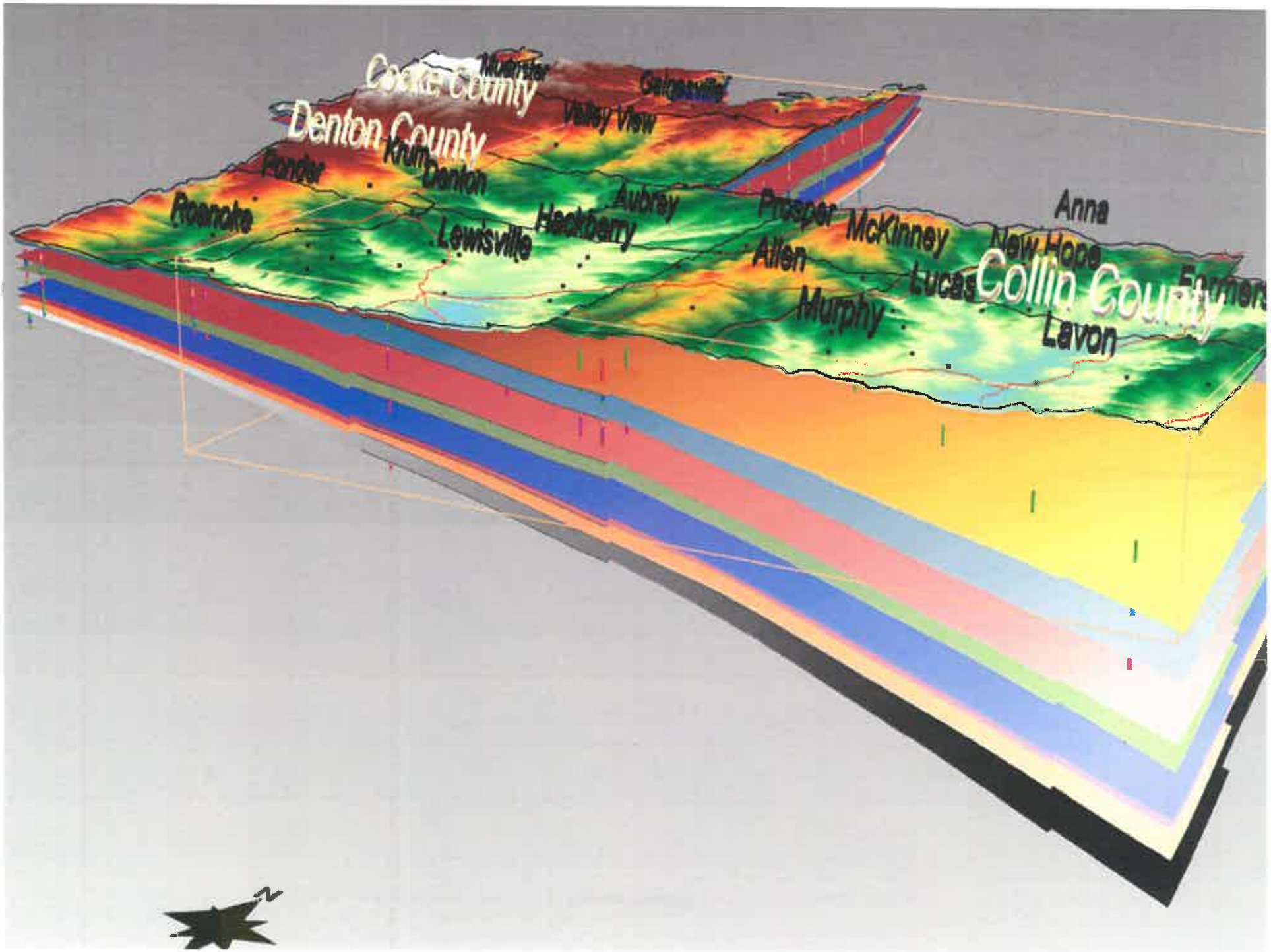


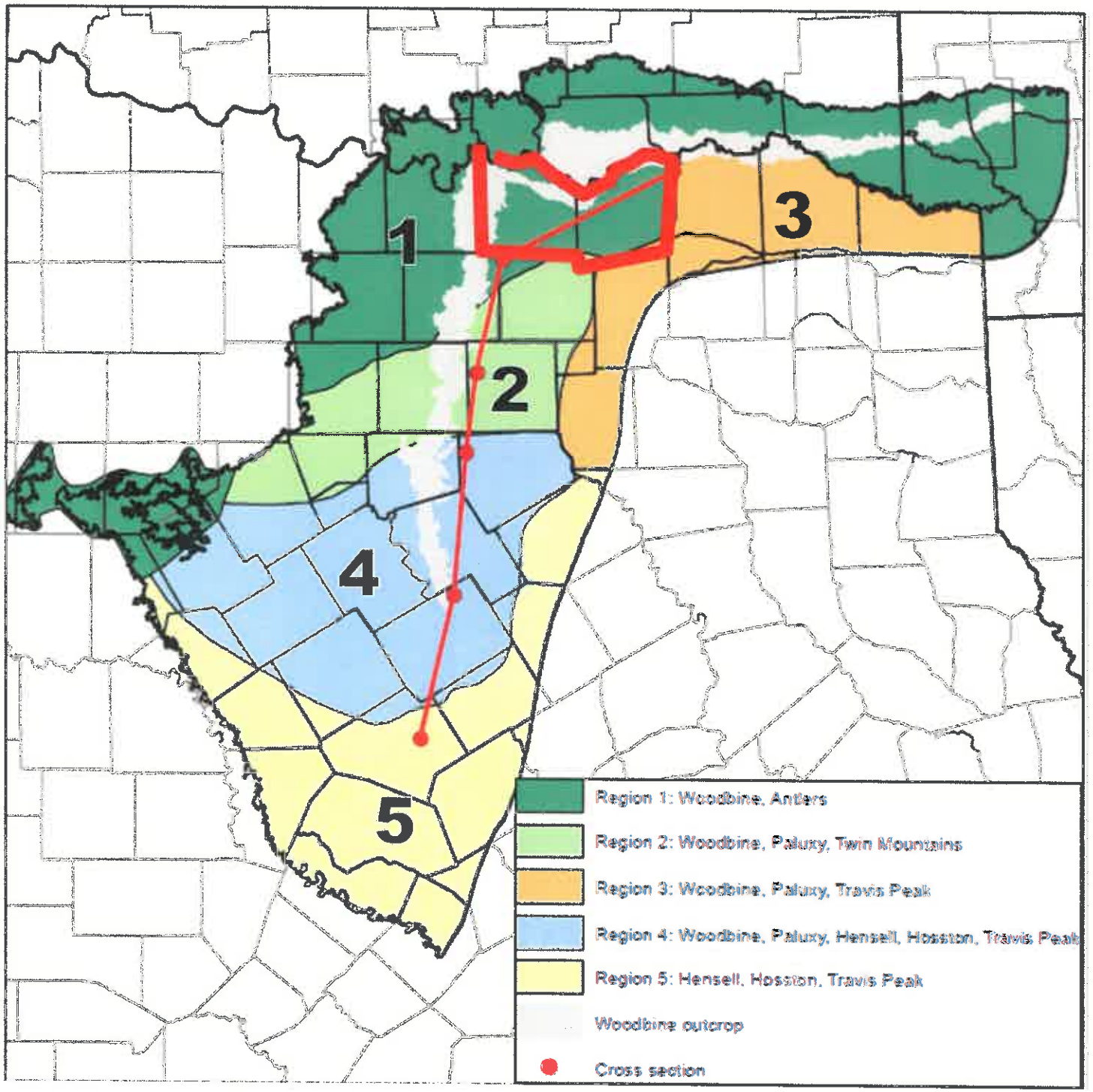
North Texas DFC



What is a GAM?

- A Groundwater Availability Model (GAM) is a geophysical study of the aquifer to determine the amount of water contained within the aquifer

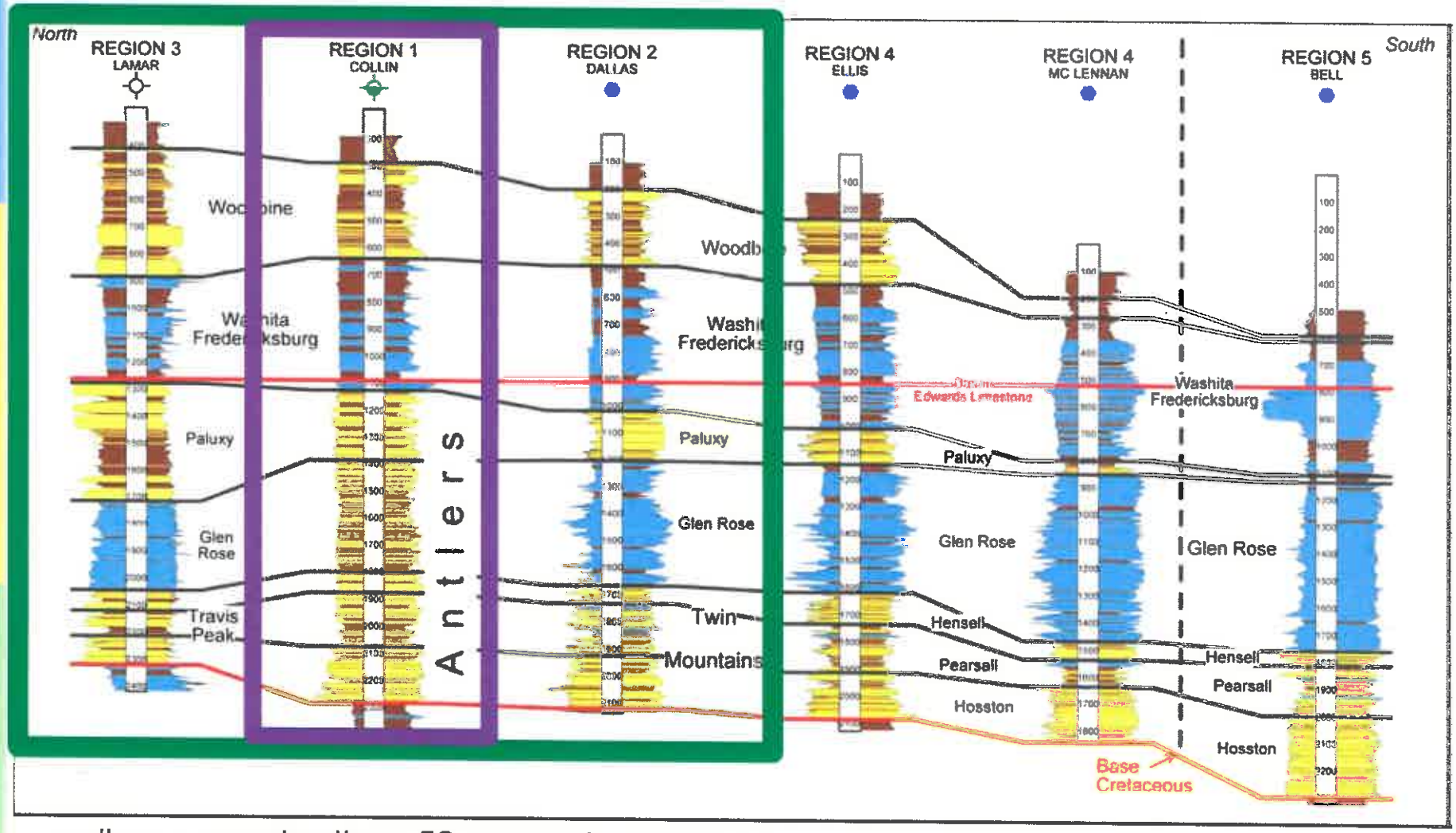

Cooke County
Denton County
Collin County
Valley View
Fondar
Krum
Denton
Aubrey
Roanoke
Lewisville
Hackberry
Prosper
McKinney
Anna
Allen
Lucas
New Hope
Murphy
Lavon
N



Hydrogeologic Regions in Northern Trinity Aquifer

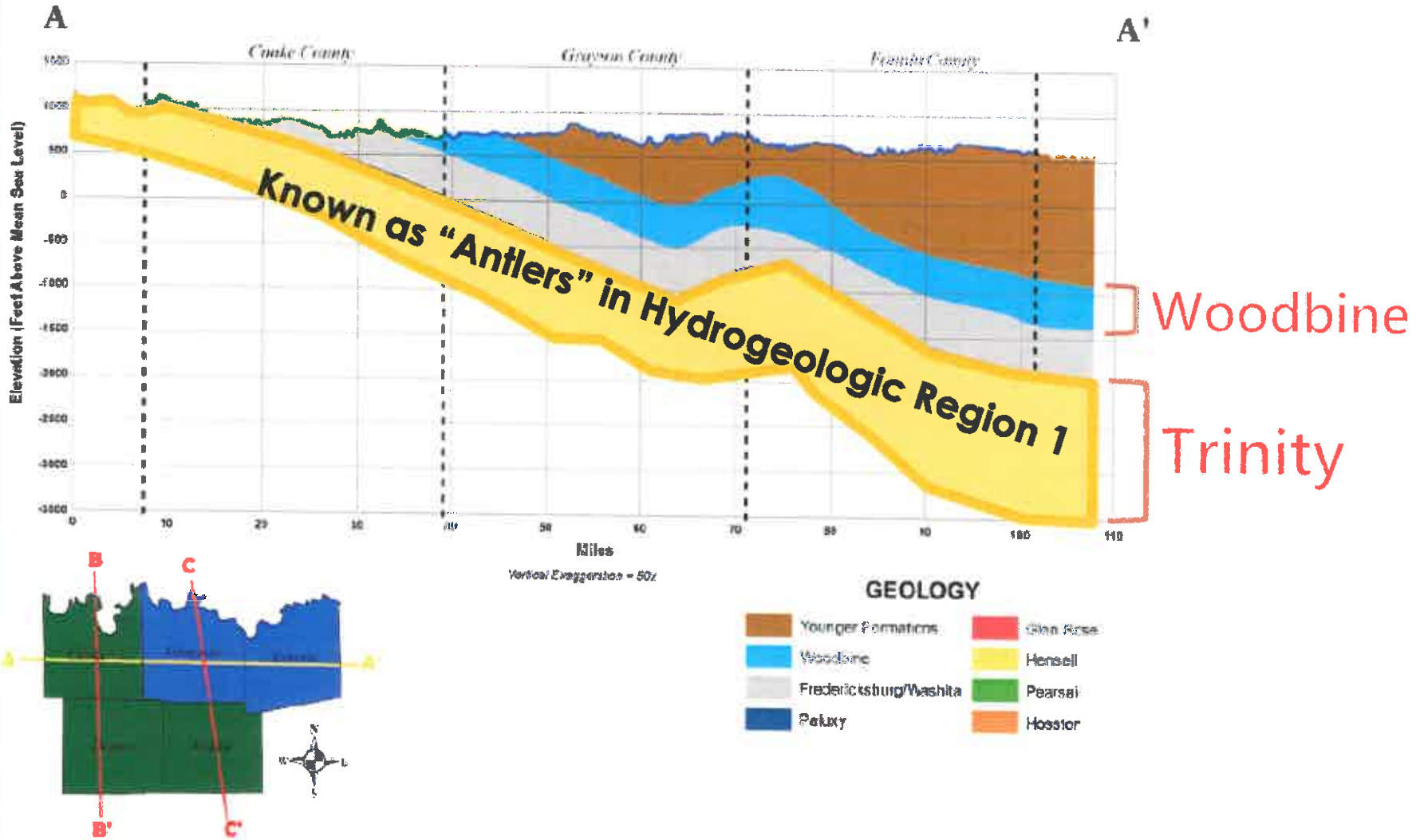
Hydrogeologic regions are generalized areas defined by stratigraphic and lithologic similarities and aquifer names common to each region.

Northern Trinity Aquifer



yellow = greater than 50 percent sandstone
blue = greater than 50 percent limestone
brown = greater than 50 percent shale (very impervious)

Model Layers (Woodbine and Trinity)



What are the districts doing now?

Rulemaking

- After public hearings, the Districts adopted
  - Temporary Rules
- In Temporary Rules, exempt wells were defined as
  - Used solely for Domestic, Livestock or Poultry purposes
  - Or wells with production capacity less than 27.7gpm (Red River) and 25gpm (North Texas)

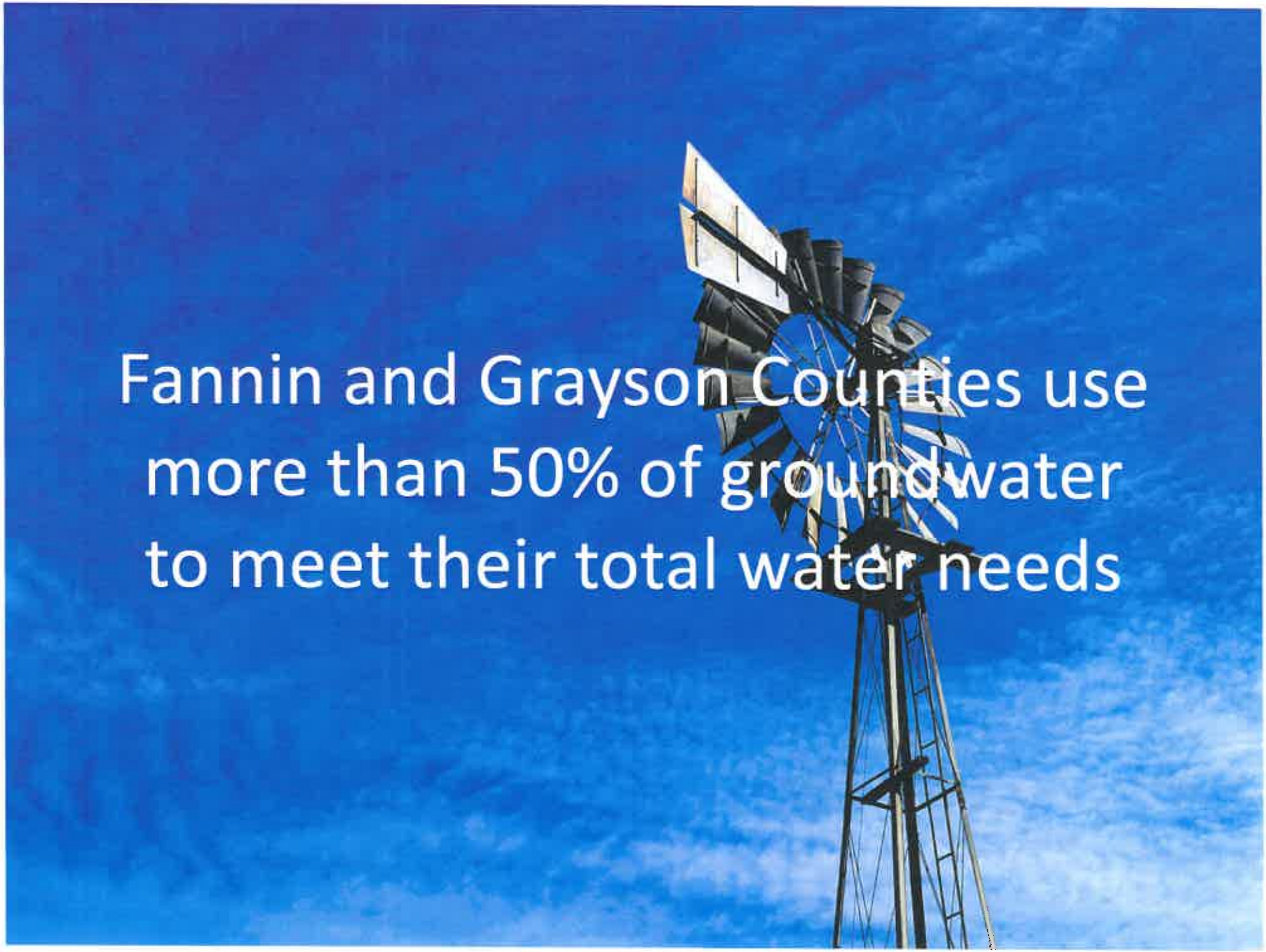
Permanent Rules

- Currently being discussed by the Districts
- Permanent Rules will include spacing requirements for new wells and production permits
- District is working to have the Permanent Rules in place by 2018

Fees

- **LOWEST FEES IN REGION**
- $0.07 per 1,000 gallons in Red River
- $0.10 per 1,000 gallons in North Texas
- Groundwater production fees are collected from non-exempt well owners
- RRGCD does not charge for agricultural use and NTGCD charge $1 per acre-foot


Over 59% of Texas' Total Water Supply
is from Groundwater


Fannin and Grayson Counties use
more than 50% of groundwater
to meet their total water needs

Questions?

Need more info, visit us at www.northtexasgcd.org

Drew Satterwhite, P.E.
General Manager
North Texas Groundwater Conservation District
December 18, 2017

ATTACHMENT D

Quarterly Reports

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

COLLIN COUNTY - COOKE COUNTY - DENTON COUNTY

General Manager's Quarterly Report
Date: March 31, 2017
North Texas GCD Management Plan

This quarterly briefing is being provided pursuant to the adopted Management Plan for the quarter ending March 31, 2017.

Well Registration Program:

Current number of wells registered in the District: 1,843

Aquifers in which the wells have been completed: Trinity and Woodbine

Well Inspection/Audit Program:

2017
Well Inspections

Month	Collin	Cooke	Denton	Total
January	6	1	14	21
February	3	2	18	23
March	13	4	10	27
April				
May				
June				
July				
August				
September				
October				
November				
December				
Total	22	7	42	71

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

COLLIN COUNTY - COOKE COUNTY - DENTON COUNTY

General Manager's Quarterly Report
Date: June 30, 2017
North Texas GCD Management Plan

This quarterly briefing is being provided pursuant to the adopted Management Plan for the quarter ending June 30, 2017.

Well Registration Program:

Current number of wells registered in the District: 1,915

Aquifers in which the wells have been completed: Trinity and Woodbine

Well Inspection/Audit Program:

2017
Well Inspections

Month	Collin	Cooke	Denton	Total
January	6	1	14	21
February	3	2	18	23
March	13	4	10	27
April	13	10	10	33
May	5	12	15	32
June	10	2	18	30
July				
August				
September				
October				
November				
December				
Total	50	31	85	166

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

COLLIN COUNTY - COOKE COUNTY - DENTON COUNTY

General Manager's Quarterly Report
Date: October 2, 2017
North Texas GCD Management Plan

This quarterly briefing is being provided pursuant to the adopted Management Plan for the quarter ending September 30, 2017.

Well Registration Program:

Current number of wells registered in the District: 1,996

Aquifers in which the wells have been completed: Trinity and Woodbine

Well Inspection/Audit Program:

2017
Well Inspections

Month	Collin	Cooke	Denton	Total
January	6	1	14	21
February	3	2	18	23
March	13	4	10	27
April	13	10	10	33
May	5	12	15	32
June	10	2	18	30
July	8	4	33	45
August	19	9	14	42
September	14	14	16	44
October				
November				
December				
Total	91	58	148	297

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

COLLIN COUNTY - COOKE COUNTY - DENTON COUNTY

General Manager's Quarterly Report
Date: December 31, 2017
North Texas GCD Management Plan

This quarterly briefing is being provided pursuant to the adopted Management Plan for the quarter ending December 31, 2017.

Well Registration Program:

Current number of wells registered in the District: 2,062

Aquifers in which the wells have been completed: Trinity and Woodbine

Well Inspection/Audit Program:

2017
Well Inspections

Month	Collin	Cooke	Denton	Total
January	6	1	14	21
February	3	2	18	23
March	13	4	10	27
April	13	10	10	33
May	5	12	15	32
June	10	2	18	30
July	8	4	33	45
August	19	9	14	42
September	14	14	16	44
October	2	10	11	23
November	6	2	32	40
December	2	0	24	26
Total	101	70	215	386

ATTACHMENT E

Reports on Region C Water Planning Group Meetings

REGION C WATER PLANNING GROUP

MINUTES OF AN OPEN PUBLIC MEETING

May 22, 2017

The Region C Water Planning Group (RCWPG) met in an open public meeting on Monday, May 22, 2017, at 1:00 P.M. The meeting was held at the North Central Texas Council of Governments located at 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas. Notice of the meeting was legally posted.

Chair Jody Puckett called the Region C Regional Water Planning Group meeting to order at approximately 1:00 P.M. and welcomed guests.

I. ROLL CALL

Kevin Ward conducted a roll call. The following members were in attendance:

Fiona Allen (Alt. for Kevin Ward)	John Lingenfelder
David Bailey	Steve Mundt
John Carman	Jody Puckett
Bill Ceverha	Bob Riley
Tim Fisher (Alt. for Howard Martin)	Drew Satterwhite
Tom Kula	Gary Spicer
Harold Latham	Connie Standridge
Russell Laughlin	Jack Stevens

Connie Townsend, TWDB, Darrell Dean, TDA, Adam Whisenant, TPWD, and David Nabors, Region D, were present. The registration lists signed by guests in attendance are attached.

II. APPROVAL OF MINUTES – December 5, 2016

The minutes of the December 5, 2016, RCWPG meeting were approved by consensus upon a motion by Jack Stevens and a second by Connie Standridge.

III. ACTION ITEMS FOR CONSIDERATION

A. Announcement of Three Vacancies: Robert Scott Representing Environmental Interests, Jim McCarter Representing Water Utilities, and Howard Martin Representing Municipalities, and Vote to Fill Vacancies.

Mr. Scott submitted his resignation effective the end of 2015. Mr. Scott recommended Grace Darling, member of the Tarrant Coalition for Environmental Awareness, as his replacement. There were no additional nominations from the planning group or the public.

Mr. McCarter submitted his resignation. Lara Zent, Executive Director and General Counsel, Texas Rural Water Association, submitted a letter recommending Chris Boyd to fill this vacancy. There were no additional nominations from the planning group or the public.

Mr. Martin submitted his resignation effective March 31, 2017, and recommended Tim Fisher, General Manager of Water Utilities at the City of Denton, as his replacement. There were no additional nominations from the planning group or the public.

Amy Kaarlela added that she will offer new board member training and initiation.

There were no public comments on this action item.

Chair Puckett asked if there were any nominations from the floor but there were none. Upon a motion from Steve Mundt, and a second from John Carman, the Board voted unanimously to accept the recommendations of Grace Darling, Chris Boyd and Tim Fisher to fill these three vacancies.

B. Receive Report from Nominating Committee for Slate of Officers for 2017; Consider Election of 2017 RCWPG Officers.

The Region C WPG nominating committee is comprised of the current officers plus two at-large members. Russell Laughlin, Vice-Chairman, reported that the Nominating Committee held a conference call on May 11, 2017. The Nominating Committee recommended the current officers serve for the calendar year 2017.

There were no public comments on this action item.

Upon a motion from Gary Spicer and a second from Steve Mundt, the RCWPG voted unanimously to elect Jody Puckett as Chair, Russell Laughlin as Vice-Chair, and Kevin Ward as Secretary of the RCWPG for the calendar year 2017.

C. Consider Appointing Nominating Committee for Slate of Officers for 2018.

The RCWPG may appoint a Nominating Committee to develop a recommendation for the 2018 slate of officers. Election of 2018 Slate of Officers will occur at the next RCWPG meeting (Fall 2017).

There were no public comments on this action item.

Upon a motion by Connie Standridge and a second by Rick Shaffer, the RCWPG voted unanimously to appoint Jody Puckett, Russell Laughlin, Kevin Ward, Tom Kula and Gary Spicer to the Nominating Committee for a slate of officers for 2018 that will be presented to the RCWPG at its next meeting for confirmation.

IV. DISCUSSION ITEMS

A. Review of Region C Water Planning Group roster of members and alternates.

Chair Puckett discussed the importance of each Region C WPG board member and alternate to provide updates on their contact information. The members were requested to send their updated information to Amy Kaarlela.

Currently, there are four vacancies for alternate member positions. According to the Bylaws…"Each member shall designate an alternate to represent them when the member is unable to attend a meeting. Alternate should be designated in writing to the Chairman prior to the first meeting the designated alternate will appear on behalf of the member."

B. Schedule

Amy Kaarlela, FNI, discussed upcoming key dates as follows:

- Nov. 30, 2017 - Population/Demand Projections due *(Note: this date has now been updated by TWDB to be January 2018)*
- March 2, 2020 - Initially Prepared Plan due
- Oct. 14, 2020 - Final Plan due
- Oct. 30, 2017 - RCWPG Fall 2017 meeting

Ms. Kaarlela added that there will be 12 RCWPG meetings over the next 4 years.

C. Status of Contracts with TWDB, TRA and Consultants.

Amy Kaarlela discussed the status of the following contracts:

- TWDB/TRA
- TRA/FNI
- FNI/subs

Connie Townsend, TWDB, advised that August 31, 2017, is the deadline for executing Amendment #1 to the current contract between TWDB and TRA. Ms. Townsend noted that this amendment includes an increase in committed funds as the biennium progresses. Ms. Kaarlela asked Howard Slobodin if the TRA/FNI contract had been executed; Mr. Slobodin stated that it had. Ms. Kaarlela advised that FNI will proceed to execute subcontracts with APAI, CP&Y, and Cooksey Communications. Ms. Kaarlela introduced the following consultants: Ellen McDonald and Brian McDonald, APAI; Chris Schmid, CP&Y; and Colby Walton, Cooksey Communications.

D. Proposed Region Specific Scope for Task 5A – Water Management Strategy Evaluation (Note: This task was incorrectly listed on the agenda as Task 4D)

- Task 5A (WMS Evaluation) is the bulk of work and funding
- A Portion of scope developed by TWDB, applies to all regions
- Remainder of scope is developed by each region, and is region-specific
- FNI will develop draft scope, using previous scope as starting point
- Scope will be presented to the RCWPG for approval at the next RCWPG meeting
- This scope does not have to be fully developed prior to executing contract amendments.

- TWDB must provide notice-to-proceed prior to consultants performing this task

E. Water Management Strategies – Review proposed criteria for evaluating WMSs.

Connie Townsend, TWDB, pointed out that according to the Regional Planning Rules, the process for identifying Water Management Strategies (WMSs) must be presented before voting on and approving proposed criteria for evaluating WMSs. Chair Puckett asked Ms. Townsend if this item could be presented for information purposes only. Ms. Townsend agreed with the condition that the discussion could only be conducted in generic terms, nothing specific. Chair Puckett said that the discussion would not supersede WMSs criteria for identifying WMSs, which will be placed on the next meeting's agenda. Chair Puckett also confirmed the group can take action on both the criteria for identifying and the criteria for evaluating WMSs at the next RCWPG meeting.

Amy Kaarlela's discussion was informative and generated several questions from the RCWPG. Ms. Kaarlela defined WMS as projects or things to meet identified water needs. Categories of WMSs are:

- Water Conservation
- Drought Management Measures
- Wastewater Reuse
- Interbasin Transfers (IBT)
- Expanded Use of Existing Supplies
- New Supply Development

Bill Ceverha asked Ms. Kaarlela to explain Precipitation Enhancement (a category of New Supply Development). Tom Gooch, FNI, replied that it involves cloud seeding to induce rain. Tom Kula asked if a front moves from west to east, would any water rights be impacted. Tom Gooch responded that there are uncertainties with legal issues of precipitation enhancement.

John Lingenfelder wanted to know the meaning of a Water Right Cancellation. Tom Gooch explained that long-term non-use of a water right can lead to its cancellation by the TCEQ and result in voluntary reassignment.

Ms. Kaarlela added that the TWDB has identified specific WMSs that each RWPG must address. Chair Puckett asked Connie Townsend if there had been any changes in the Rules, and she replied there were none. Chair Puckett concluded the discussion by stating there will be an action item on the next RCWPG agenda on the process for identifying WMSs.

F. 2021 Texas Water Development Board Draft Population and Municipal Water Demand Projections

Amy Kaarlela led this discussion on draft population projections. Ms. Kaarlela advised that this information is posted on the Region C website under "Planning Info".

She also informed the planning group that a region is not allowed to change the total population of the region; if one county is increased then another county must be decreased.

In TWDB's draft projections, there were no changes from 2016 Region C Water Plan to:

- County Population totals
- Regional Population total
- Gpcd (but may be revised)

Changes from the 2016 Region C Water Plan:

- WUG boundaries – now based on utility service areas, not city limits
- Municipal water demands are slightly different because of change to WUG boundary delineations

Ms. Kaarlela advised that steps have been and will be taken to revise draft population projections as follows:

- First revision of projections based on:
  - Meetings with the 5 Major WWPs
  - WUG Water/Wastewater Master Plan
  - Collin County Mobility Study
  - Denton County Thoroughfare Plan

- Additional Revisions will be made after the following activities:
  - Meetings with other large WWPs
  - Calling/surveying remaining WWPs
  - Surveying all municipal WUGs via email.

Tim Fisher asked why the 2016 plan population projections for Collin County increased but Parker and Fannin Counties decreased. Ms. Kaarlela explained that the increased projections for Collin County came from the Mobility Plan. The Plan had low, medium, and high projection scenarios. The medium scenario was utilized, which added about 500,000 people to Collin County. This population had to be taken from other counties since the regional total is required to stay the same. Kaarlela also said this is the first cut in the process of adjusting numbers. Surveys will be emailed to WUGs in June. Also in June, new gpcd data will be received from the TWDB and GPCD values will be revised, if warranted. Kaarlela advised that she will provide information to the planning group on the population revision process. It was noted that the projections are particularly important in the 404 permitting process.

Kaarlela has met with the big 5 WWP – North Texas MWD, Dallas Water Utilities, Tarrant Regional WD, Upper Trinity Regional WD, and the Trinity River Authority. Kaarlela added that she will be reaching out in the coming weeks to smaller wholesale water providers. The 2021 population projections will be finalized and approved at the Region C WPG's next meeting.

Tom Gooch added that the spreadsheet presentation is posted on the Region C website and open for comments.

G. Texas Water Development Board Draft Mining Demand Projections

Brian McDonald, APAI, led the discussion on this agenda topic. McDonald advised that the draft mining demand numbers are the same as the current State Water Plan. Additional data provided by the TWDB and the Bureau of Economic Geology has been considered, and no reason was found for any significant changes.

Steve Mundt asked why Wise County was the only county that increased. McDonald replied that their numbers for aggregate mining from the Bureau of Economic Geology increased water use long term.

H. Schedule for Approving Population and Water Demand Projections

Amy Kaarlela outlined the planning group schedule for approving population and water demand projections as follows:

- June - Email surveys to WUGs; revised gpcd
- June to October - Continued contact with water providers
- October - Post Projections for public comments (14 days prior to public meeting)
- October - RCWPG consider approval of projections at public meeting
- November - Continue posting (14 days after meeting)
- End of Nov. - Submit projections to TWDB
- Connie noted that the 14-day posting before and after the next meeting does not apply in this case. It only applies when a RWPG is revising projections that have previously been approved.

I. Potential additional Sub-consultants to Region C Team

Amy Kaarlela identified several reasons for adding sub-consultants to the Region C WPG team as follows:

- Would involve key outlying counties – Rockwall, Collin, Ellis, Kaufman, others
- Local consultants already work for many of the smaller water providers
- Helpful in developing water strategies
- Would potentially add 1 to 2 small engineering firms to Region C team

Kaarlela added that the TWDB requires a selection process including a Certification of Procurement form. Connie Townsend corrected this, saying only the Certificate of Procurement was needed. However, Howard Slobodin clarified that TRA would require a competitive selection process. Also, the sub-consultants would have to be approved by the RCWPG.

Steve Mundt asked if the funding for sub-consultants has to be budgeted. Ms. Kaarlela replied that each RWPG has a specific budget allocated by TWDB. Region C has approximately $2.4 M allocated, and funding for sub-consultants would come out of the consultant's budget.

J. Newsletter articles

Colby Walton, Cooksey Communications, gave the presentation on the newsletter. The current funding of the newsletter is unsure. Originally, the newsletter was funded by the large water providers and was sent to approximately 1600 recipients quarterly, and then later, semi-annually. These funds have been depleted. The question was raised concerning Kevin Ward's attempt to obtain allocation of funding for the newsletter in the TWDB contract amendment. Connie Townsend, TWDB, said the Water Board has approved up to $5,000 per 5-year period for the newsletter labor and printing costs.

Walton advised that each newsletter costs around $8,000 to produce. Bill Ceverha asked whether the Region C website has the same information as in the newsletter. Walton responded that the website forces a person to sift through an abundance of technical data. Russell Laughlin asked what is trending on the Region C website and whether someone could convert the technical data to layman's terms. Walton countered that the newsletter is a better mechanism to push information to the public.

Chair Puckett suggested discussing the newsletter's future at the next officer's meeting and reporting the results back to the planning group at the next RCWPG meeting. Chair Puckett also mentioned the possibility of finding sponsors for the newsletter.

K. Legislative Updates

Lissa Gregg, FNI, briefly discussed legislation of interest to the RCWPG currently being considered by the Texas Legislature. The following bills were passed and will become effective September 1, 2017:

SB 347 – (Watson) Relating to the applicability of open meetings and public information laws to regional water planning groups and their committees.

SB 1511 – (Perry) Relating to the state and regional water planning process and the funding of projects included in the state water plan. This bill:

- Removes infeasible strategies
- Assess barriers to high priority strategies
- Optional simplified regional planning process every other 5 years

Also discussed were HB2948 (Larson) and HB2240 (Lucio III).

Chair Puckett added that because of SB347, future RCWPG meetings to discuss officer nominations or prioritization will need to be labeled other than committee or subcommittee meetings to avoid falling under open meeting posting requirements.

V. OTHER DISCUSSION

A. Updates from the Chair – Chair Puckett had no further comments.

B. Report from Regional Liaisons

- Region B - Jack Stevens reported they are trying to get Drought of Record changed; have held 5 meetings this year.
- Region D - David Nabors reported they have been conducting regular housekeeping duties; next meeting is July 26, 2017, to approve 8 new members. Nabors added that what RCWPG does as a group is very important to future generations and the long-range planning process.
- Region G - Bill Ceverha noted this planning group met in April to confirm new members; also discussed the mining projections.
- Region H - no comment

C. Report from Texas Water Development Board – Connie Townsend stated that the TWDB projections on GPCD and mining reuse water will be forthcoming. Townsend advised that the TWDB will hold a finance workshop in Ft. Worth on May 9, 2017. Ms. Townsend also introduced Sarah Backhouse who has replaced Temple McKinnon at the TWDB.

D. Report from Texas Department of Agriculture - None

E. Report from Texas Parks and Wildlife Department - None

F. Other Reports - None

G. Confirm Date and Location of Next Meeting - Chair Puckett confirmed that the next meeting of the RCWPG will be on October 30, 2017, but is subject to change as needed.

H. Public Comments - None

VI. ADJOURNMENT

There being no further business, the meeting of the RCWPG adjourned at approximately 3:35 P.M.

_____

JODY PUCKETT, Chair

REGION C WATER PLANNING GROUP

MINUTES OF AN OPEN PUBLIC MEETING

December 18, 2017

The Region C Water Planning Group (RCWPG) met in an open public meeting on Monday, December 18, 2017, at 1:00 P.M. The meeting was held at the North Central Texas Council of Governments located at 616 Six Flags Drive, Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas. Notice of the meeting was legally posted.

Chair Jody Puckett called the Region C Regional Water Planning Group meeting to order at approximately 1:00 P.M. and welcomed guests.

I. ROLL CALL

Russell Laughlin conducted a roll call. The following members were in attendance:

Fiona Allen (Alt. for Kevin Ward)	John Lingenfelder
David Bailey	Steve Mundt
Kenneth Banks (Alt. for Tim Fisher)	Jody Puckett
Wendy Chi-Babulal (Alt. for John Carman)	Bob Riley
Chris Boyd	Drew Satterwhite
Bill Ceverha	Rick Shaffer (Alt. for James Hotopp's seat)
Grace Darling	Gary Spicer
Tom Kula	Connie Standridge
Harold Latham	Jack Stevens
Russell Laughlin	

Connie Townsend, TWDB, Darrell Dean, TDA, Adam Whisenant, TPWD, and David Nabors, Region D, were present. Also attending was Ken Morgan, Fort Worth Water Utilities. The registration lists signed by guests in attendance are attached.

II. APPROVAL OF MINUTES – May 22, 2017

The minutes of the May 22, 2017, RCWPG meeting were approved by consensus upon a motion by Jack Stevens and a second by Grace Darling.

III. TWDB BOARD MEMBER UPDATE by Kathleen Jackson

Kathleen Jackson, TWDB, was unable to attend this Region C WPG meeting due to a family emergency. Connie Townsend, TWDB, acted in her place and presented a plaque from the TWDB to Chair Jody Puckett for her service to the Region C WPG as Chair.

IV. ACTION ITEMS FOR CONSIDERATION

A. Consider Approval of Revised Population and Demand Projections and authorize Consultants to Make Minor Revisions Prior to Submittal to TWDB

Keeley Kirksey, FNI, led the presentation and advised that the consultant team has revised TWDB's initial population and municipal water demand projections using

TWDB guidelines and information obtained from surveys, meetings, recent reports and studies and other information.

Brian McDonald, Alan Plummer Associates, Inc., gave the presentation on projected non-municipal water demands.

Amy Kaarlela, FNI, noted that all of these changes have been reviewed by the TWDB and that she was confident they would be approved.

There were no public comments on this action item.

Upon a motion by Fiona Allen, and a second by Jack Stevens, the Region C WPG voted unanimously to approve the revised population and demand projections and authorize the Consultants to make minor revisions prior to submittal to TWDB as necessary, with the stipulation that the changes will not significantly change the overall projections.

B. Consider Designation of Wholesale Water Providers

Amy Kaarlela led this discussion of WWP designations. The TWDB defines a WWP as "any person or entity…that delivers or sells water wholesale (treated or raw) to WUGs or other WWPs or that the RWPG expects or recommends to deliver or sell water wholesale…The RWPGs shall identify the WWPs within each region"

- Previous definition included a 1,000 ac-ft/yr minimum
- New definition has no volume requirement
- 2016 Plan = 41 WWPs
- 2021 Plan = 41 WWPs – 5 WWPs = 36 WWPs
    - Argyle WSC
    - Cross Timbers WSC
    - East Cedar Creek FWSD
    - Lake Cities MUA
    - West Cedar Creek MUD

The consultant team has designated thirty-six wholesale water providers to be approved by the RCWPG. Due to the transition to utility-based water user group designations, this is five fewer than the previous round.

There were no public comments on this action item.

Upon a motion by Bill Ceverha, and a second by Bob Riley, the Region C WPG approved the Consultant's recommendation to keep the 36 WWPs using the same designation that has been used in previous plans.

C. Announcement of Vacancy for James Hotopp's position Representing Municipalities; Call for Nominations to Fill Vacancy, and Vote to Fill Vacancy

Chair Puckett advised the Region C WPG that James Hotopp submitted his resignation effective December 18, 2017. Mr. Hotopp has recommended Rick Shaffer, his current Alternate, as his replacement. Chair Puckett asked if there were any additional nominations from the planning group or the public, but there were none.

There were no public comments on this action item.

The Region C WPG voted unanimously to accept the recommendation of Rick Shaffer to fill this vacancy.

D. Receive Report from Nominating Committee for Slate of Officers for 2018; Consider Election of 2018 RCWPG Officers

Chair Puckett advised that the RCWPG nominating committee was unable to present its recommendation for officers to serve during the calendar year 2018 since it did not have a quorum for the committee conference call meeting held on December 15, 2017. The Nominating Committee will meet sometime in January to decide upon a recommended slate of officers for the calendar year 2018 for election at the next RCWPG meeting.

E. Consider Resolution 17-1 Appointing a Region C Public Information Coordinator in accordance with the Public Information Act

Chair Puckett discussed the appointment of a Region C Public Information Coordinator in accordance with Resolution 17-1 of the Public Information Act. Puckett advised that the Region C WPG Officers have recommended that the General Manager of TRA be authorized to designate a TRA employee(s) to fulfill the obligations of the Public Information Coordinator.

Howard Slobodin, TRA General Counsel, advised the Region C Planning Group that they will not be required to take the Public Information Act training.

There were no public comments on this action item.

Upon a motion by Steve Mundt, and a second by Connie Standridge, the RCWPG voted unanimously to approve the appointment of a Region C Public Information Coordinator and authorize TRA to designate a TRA employee(s) to fulfill the obligations of the Public Information Coordinator.

F. Consider Methodology for Identifying Potentially Feasible WMSs; Review of Methodology for Evaluating Water Management Strategies; Approve Both Methodologies

Tom Gooch, FNI, advised that the consultant team has identified methodologies identifying potentially feasible WMSs and evaluating WMSs. The methodology for evaluating WMSs was considered at the last RCWPG public meeting and was briefly reviewed during the presentation.

Regional Planning rules state that:

- Consultants must present methodology for Identifying Potentially Feasible WMSs to Planning Group
- Planning Group must approve methodology
- Consultants must present criteria for evaluating WMSs to Planning Group (presented at RCWPG Open Meeting held on May 22, 2017)
- Planning Group must approve WMS evaluation criteria

General Method for Identifying PFWMS:

- Similar Methodology as previous rounds
- Conservation is required WMS for all
- WMSs from previous Regional Plans
- Contact with Water Providers
    - Survey of WUGs
    - Meetings with WWPs
- Seek input from Region C Members
- Accept input from public, verify with Water Provider

Categories of WMSs:

- Water Conservation
- Drought Management Measures
- Wastewater Reuse
- Interbasin Transfers (IBT)
- Expanded Use of Existing Supplies
- New Supply Development

General Method for Evaluating PFWMS:

- Presented at May 22, 2017 RCWPG meeting
- Similar Methodology as previous rounds
- Must:
    - Meet a "need"; reasonable % of need
    - Have a sponsor; available supply, implementable
    - Consider end use (quality, distance from user)
    - Meet regulation; permittable
    - Based on proven technology
    - Appropriate for regional planning

There were no public comments on this action item.

Upon a motion from Grace Darling, and a second from Gary Douglas, the RCWPG voted unanimously to approve the Method of Identifying and Evaluating Potentially Feasible Water Management Strategies (WMSs).

G. Consider Approval for TRA to Execute Contract Amendment with TWDB to include Additional Funds and updated TWDB Regional Planning Rules

Amy Kaarlela, FNI, discussed this item for the RCWPG to consider approval for TRA, the political subdivision, to execute contract amendments with TWDB. This will be under the stipulation that this will be limited to including additional funds and updating TWDB regional planning rules as necessary.

The TWDB will amend all contracts with all Regions in January to include:

- Additional Funding
- Revised TWDB Regional Planning Rules

There were no public comments on this action item.

Upon a motion by Steve Mundt and a second by Jack Stevens, the RCWPG voted unanimously to authorize TRA to execute this contract amendment with TWDB.

H. Consider Support of the Cities of Hudson Oak and Willow Park's requested Minor Amendment to the *2016 Region C Water Plan* and approve/authorize the planning group to submit this amendment request to the TWDB along with a request for a minor amendment determination

Preston Dillard, Halff Associates, presented this item. Since the publication of the *2016 Region C Water Plan*, the cities of Hudson Oak and Willow Park have determined that it is in their best interest to modify their future water supply needs by obtaining potable drinking water from the City of Fort Worth, rather than the City of Weatherford as shown in the last regional plan.

Requested Minor Amendment by Hudson Oaks & Willow Park:

- Cities seeking SWIFT funding for project not in 2016 Region C Plan
- Cities present basic information on amendment/project and RCWPG votes on supporting the cities' request
- If supported by RCWPG, Cities to prepare minor amendment "packet" to TWDB
- TWDB to determine if minor amendment and consider the amendment for approval
- If approved by TWDB, the request goes back to RCWPG for approval

Hudson Oaks:

- Current Population of 1,900
- Projected 2070 Population of 4,808

- Current supplies are City of Weatherford and groundwater
- WMS from 2016 Region C Plan:
  - Conservation
  - Additional Weatherford water (TRWD)

Willow Park:

- Current population of 4,500
- Projected 2070 population of 16,000
- Current supplies are groundwater
- WMS from 2016 Region C Plan:
  - Conservation
  - Purchase treated water from Weatherford (raw water supplied by TRWD)
  - Alternative WMS – purchase treated water from Fort Worth (raw water from TRWD)

Proposed Project:

- 18-inch & 16-inch diameter transmission main
- Approximately 5 miles long
- Includes meter stations, storage, and pumping
- Connects to Fort Worth system near I-20 & FM 1187
- Both Hudson Oaks and Willow Park city councils passed resolutions
- Fort Worth Water Department is supportive of project (not city council)

Connie Townsend, TWDB, added a clarifying remark for Willow Park that the Strategy of purchasing water from Fort Worth would be a substitution of a recommended strategy with an alternative strategy rather than a minor amendment. The process for a strategy substitution is less intense than a minor amendment.

Amy Kaarlela, FNI, asked who would make the minor amendment determination. Ms. Townsend replied that the Executive Administrator of the TWDB would make that determination, not the Region CWPG. The Planning Group will submit the packet to the TWDB. The State Water Plan will be amended after the Region C Water Plan.

Chair Puckett advised that the Fort Worth City Council has not approved this amendment/project. Both city councils of Hudson Oaks and Willow Park have passed resolutions in support.

Amy Kaarlela, FNI, added that the cities of Hudson Oaks and Willow Park are seeking support from the Region C Planning Group because SWIFT funding applications are due by February 2, 2018. Ms. Townsend advised that there are a lot of hoops to jump through to obtain SWIFT funding, and there may not be enough time to make that happen. Preston Dillard, Halff Associates, added that if

approval is not received this year, these cities would be interested in applying for SWIFT funding next year.

There were no public comments on this action item.

Upon a motion from Fiona Allen and a second from Grace Darling, the RCWPG voted unanimously to support the City of Hudson Oaks' requested Minor Amendment and the City of Willow Park's requested Substitution of a recommended strategy with an alternative strategy to the *2016 Region C Water Plan* and approve/authorize the planning group to submit these requests to the TWDB along with a request for a minor amendment determination for Hudson Oaks.

I. Consider Support of the City of Westlake's requested Minor Amendment to the *2016 Region C Water Plan* and approve/authorize the planning group to submit this amendment request to the TWDB along with a request for a minor amendment determination

Connie Townsend, TWDB, advised the Planning Group that this item will have to be tabled because the information was not entered into the TWDB Regional Planning Database (DB17) in time for consideration.

V. DISCUSSION ITEMS

A. Schedule – Amy Kaarlela discussed the following upcoming key dates:
- January 12, 2018 – Population/Demand Projections due
- September 2018 – Technical Memo on Needs (existing supply minus demands)
- March 2, 2020 – Initially Prepared Plan due
- October 14, 2020 – Final Plan Due
- Next Meetings – Spring/April & August 2018

B. New and Removed WUGs – Amy Kaarlela led this discussion on Water User Groups (WUGs) as follows:
- TWDB's new definition of WUGs is Water Providers > 100 acre-feet/year
- Moved to "service area boundaries" for WUGs rather than city limits
- Eliminated cities who do not provide their own retail water service
- Added many SUDs/MUDs/WSCs
- 52 Added WUGs
- 47 Removed WUGs

C. Major Water Provider Designation – Keeley Kirksey, FNI, defined a Major Water Provider (MWP) as:
- *A water user group or a wholesale water provider of particular significance to the region's water supply as determined by the regional water planning group. This may include public or private entities that provide water for any water use category.*
- A subset of WUGs and/or WWPs
- After discussions with TWDB staff:

  - Intended to give a snapshot of the plans for the region
  - For reporting purposes only. Designation as a MWP does not affect inclusion in the plan, prioritization, or funding eligibility.
- How does the Planning Group want to define "significant"?

MWP vs. WWP

- *Any person or entity…that delivers or sells water wholesale (treated or raw) to WUGs or other WWPs or that the RWPG expects…to deliver or sell water wholesale to WUGs or other WWPs…*
- 2021 Plan has 36 anticipated WWPs
- WWPs will still be specifically planned for in the text

Proposed Alternatives for Designating MWPs

- Alternative 1 (Recommended) – Large WWPs (DWU, NTMWD, TRA, TRWD, UTRWD)
- Alternative 2 – Regional WWPs as designated in the 2016 Region C Water Plan
- Alternative 3 – Function of amount of water sold in a given year
- Alternative 4 – All WWPs designated as MWPs

Rick Shaffer asked if there is a downside to the designation. Wendy Chi-Babulal asked if the TWDB is looking for non-municipal water providers. Ms. Chi-Babulal also asked what if the electronic database will be able to flag a WUG or WWP. Connie Townsend, TWDB, advised that the Legislature needs a summary of information from a water plan that identifies significant WWPs. Chair Puckett asked if the planning group has to designate major WWPs. Ms. Townsend replied that if the planning group doesn't select any in the information due to the TWDB on September 18, 2018, it will show that Region C does not have any.

Chair Puckett added that the raw water level deserves the first cut. Puckett also requested the consultants think of different combinations.

D. Tasks 5A and 5B – Reuse and Conservation – Brian McDonald, APAI, led this discussion.

Task 5A – Reuse Recommendations

- Gather information on existing and planned reuse
  - Surveys
  - Meetings with WWPs/WUGs
  - 210 Authorizations
- Identify potential reuse projects that can help meet projected shortages

Task 5B – Water Conservation Recommendations

- Scope of Work
  - Identify, evaluate and recommend water conservation WMSs

- Consider water conservation practices and drought management measures for each identified water need
- Consider strategies to address issues revealed by water loss audits
- Regional water plan must include:
  - Water conservations practices for each group that is required to develop a Water Conservation Plan
  - Drought management measures for each group that is required to develop a Drought Contingency Plan
  - A water conservation strategy that will result in the highest practicable level of water conservation and efficiency achievable for each WUG/WWP that is obtain water from a proposed interbasin transfer under Texas Water Code 11.085
- If a water conservation strategy and/or a drought management strategy is not recommended to meet a need, document the reason
- Provide model water conservation plans
- Develop a subchapter document that consolidates the RCWPG's water conservation recommendations.

- Approach to water conservation recommendations
  - Gather information on existing and planned conservation practices
    - Surveys
    - Meetings with WWPs/WUGs
    - Water conservation plan and drought contingency plans for WWPs/WUGs
  - Develop a Water Conservation Package that is:
    - Practicable for implementation in Region C
    - Projected to provide long-term water savings
    - Projected to provide reasonable water savings at reasonable cost for a wide range of WUGs
  - Recommend Water Conservation Package for municipal WUGs that meet the following criteria:
    - Projected total water demand exceeds existing water supply
    - Projected total water demand is greater than 140 gpcd
    - Measure is not already implemented
    - Measure is applicable to WUG
    - A sponsor can be identified to implement the measure
  - In the 2016 Region Water Plan, the following Water Conservation Package was recommended for each municipal WUG:
    - Low flow plumbing fixtures
    - Efficient new residential clothes washer standards
    - Efficient new residential dishwasher standards
    - Enhanced public and school education
    - Price elasticity/rate structure impacts
    - Enhanced water loss control program
    - Time-of-day irrigation restrictions
    - Water waste prohibition
  - Develop water conservation policy recommendations
  - Update model water conservation plans
  - Develop water conservation recommendations subchapter

Fiona Allen asked what happens if a municipality does not want to comply with these water conservation measures. Amy Kaarlela, FNI, responded that water conservation plans are included in the regional water plan, but there is not a requirement to implement. The regional water planning group has no authority to force compliance or regulate. Chair Puckett added that political pressure is often the best way to motivate compliance, e.g. a WWP can put pressure on management of system with contractors.

E. Task 8 Unique Stream Segments, Unique Reservoir Sites, and Legislative Recommendations – Ellen McDonald, APAI, led this discussion. McDonald stressed the importance of how the planning group wants to approach Task 8 in the next cycle. McDonald discussed:
    - Task 8 objective
    - Summary of recommendations from 2016 Region C Plan
    - Process to develop Task 8 recommendations for current planning cycle.
    - Provide recommendations for:
        - Unique stream segment designations
        - Unique reservoir site designations
        - Legislative, administrative and regulatory actions
    - Summary of Recommendations from 2016 Region C Plan – Task 8
        - Unique stream segments
            - Convene a working group comprised of representatives of TWDB, TPWD, TCEQ, and the sixteen regions to bring clarity, purpose, and direction to the legislative mandate to "identify river and stream segments of unique ecological value"
        - Unique reservoir sites
            - Continue to designate following reservoir sites as unique sites:
                - Ralph Hall
                - Lower Bois d'Arc Creek
                - Marvin Nichols
                - Tehuacana
                - Fastrill
                - Columbia
            - Recommend that the Texas Legislature designate George Parkhouse (North) as an additional unique site for reservoir construction
            - Encourage continued affirmative votes by sponsors of these reservoirs to make expenditures to construct or apply for permits to preserve the designations
        - Policy and Legislative Recommendations
            - Regional Planning Process
            - TCEQ Policy and Water Rights
            - State Funding and Water Supply Programs
            - Water Reuse and Desalination
            - State and Federal Program – Water Supply Issues
    - Discussion of Process to Develop Task 8 Recommendations for Current Planning Cycle

- Consultant budget for Task: $13,402 (indicates TWDB's expectation of limited effort by consultants for this task)
- Process for last cycle:
  - Subcommittee established to discuss and make recommendations to planning group
  - Final adopted recommendations were not substantially different from previous cycle
- Discussion of changes since last planning cycle
- Discussion of process for this planning cycle

Chair Puckett asked the planning group if anyone had any comments. Dennis Qualls recommended a subcommittee be established to bring recommendations back to the planning group as was done in the previous cycle. Chair Puckett asked Amy Kaarlela, FNI, to research the members on the previous subcommittee, and advised that this subcommittee meeting will need to be posted as an open meeting.

Bill Ceverha asked how reservoirs/aquifers names were designated. Chair Puckett replied that they are designated by the Legislature then special interest groups. Chair Puckett added that there are protections by law to designations as unique reservoir and stream sites.

F. Legislative Updates – Amy Kaarlela, FNI, led this discussion on the following:
- SB347 – Requires all RWPG Members and Alternates to take Open Meetings Act Training
- HB2215 – Changes GMA process/timing of adopting Desired Future Conditions (DFCs) to sync with 5-year regional planning cycles
- SB1511
  - Adds new non-voting member to RWPG from Texas State Soil & Water Conservation Board (Rusty Gray, TSSWCB designee for Region C attended meeting)
  - Requires RWPG meeting location to be "readily accessible to the public"
  - Simplified planning option
  - Remove "infeasible" projects from the Plan (*no action by sponsor when project is needed*)

G. Public Participation Strategies – Colby Walton, Cooksey Communications, led this discussion. Walton said his goal is Public Awareness and suggested:
- Feedback from Planning Group for ideas in lieu of quarterly/semiannual newsletters
- Ways to keep the public better informed and engaged through informational materials and communication channels
- Engage not only the public but also the private sector, civic and business groups
- One-Pager or Small Brochure: Overview of Region C Water Planning
  - Who/What is the RCWPG (members, role)
  - Where is Region C: geographic area/map

- The Need: demand & population projections
- Current Plan: summary of recommended Water Management Strategies
- The Importance of Conservation and Reuse
- Current Process and Next Steps (including opportunities for public input)
- Contact Info

- PowerPoint Presentation/Slides for Use in Speaking Engagements by Members
- Elevator Speech and Key Messages
  - Internal Guide/Reference Material for Planning Group Members
    - Elevator Speech: 2-3 sentence description of what Region C Water Planning is, why it's important
    - Key Messages/Q&A: summary of key information on various Regional Water Planning topics
- Website Updates
  - Conversion to a more user-friendly, easily updated and mobile-responsive format (WordPress)
  - Addition of one-pager/brochure
  - Update of keywords/terms glossary
  - Updates to media materials
  - Feature quarterly theme/key messages highlighting what's happening now, most important
- Need Input from Planning Group
  - What are the key messages to emphasize for the next 6-8 months
  - What presentations have you made recently?
  - What feedback/questions are you getting that we can address through Region C's communications materials (handouts, website)?

Walton advised he will have a draft for the planning group by early 2018. Walton asked if the planning group had any questions or feedback. Steve Mundt asked if anyone is monitoring hits on the RCWPG website. Amy Kaarlela, FNI, answered that the website is old and does not monitor hits. Walton said it could possibly tie into Google Analytics to record the hits. Grace Darling asked if a contact list could be included on the website. Walton advised the current website can be updated to include contact information.

H. Next Steps – Amy Kaarlela, FNI, led this discussion. Key points made by Kaarlela:
- Begin finalizing existing supplies – Task 3
- Allocate existing supplies
- Determine Needs (demand vs. existing supply)
- Produce Technical Memo – Task 4C which is due September 2018
- Begin Identifying Potentially Feasible WMSs (part of Technical Memo)
- Develop region-specific portion of scope for Task 5A

VI. OTHER DISCUSSION

A. Updates from the Chair - None

B. Report from Regional Liaisons
   - Region B – Jack Stevens advised there will be a meeting in January. One item on agenda is to approve Drought of Record which is affecting the livestock industry.
   - Region D - David Nabors advised that the July 26th meeting was similar to the Region C meeting; February 5, 2018, is the next Region D meeting. Nabors emphasized the important of educating the public on water conservation; he would like to see everyone work together to take information into schools and involve teachers.
   - Region I – Connie Standridge advised that the Region I WPG next meeting is February 21, 2018.

C. Report from Texas Water Development Board – Connie Townsend, TWDB, spoke on the following topics:
   - Proposed Updates to TWDB rules/guidance:
     - TWDB is updating their rules and guidance to address the statutory changes that occurred during the 85th Texas Legislative Regular Session (SB347, HB2215, & SB1511).
     - December 7th, TWDB approved publishing proposed draft rules and those are posted on the TWDB website. Anticipate to post to Texas Register December 22nd, and public comments will be accepted through January 31, 2018.
     - The associated proposed changes to RWP Contract Exhibit C Guidance have been posted for public comment with same timeline.
   - State Water Plan Amendment was approved on December 7th.
   - SWIFT (FY18) – The Fiscal Year 2018 SWIFT program opened December 8th and Abridged Applications will be accepted through February 2nd.
   - January 12, 2018 – Deadline to submit RWPG projections revision requests and WWP list to TWDB.
   - March – April 2018 – This is the anticipated timeframe that projections for the 2021 RWPs will be taken to TWDB's governing board for adoption consideration.
   - Next RWPG items to consider:
     - Determination and Approval of Region C's process for identifying Potentially Feasible WMSs.
     - Determination of needs once final water demand projections have been approved by TWDB Board this spring and the RWPG has determined existing supplies.
     - Subsequently, as the RWPG develops SOW for WMS evaluations, these can be submitted to TWDB for amendment into its contract and receive notice to proceed for evaluations.
     - Technical Memo and MWPs List due September 10, 2018.

D. Report from Texas Department of Agriculture - None
E. Report from Texas Parks and Wildlife Department – Adam Whisenant commented that they can help with Task 8 – Unique Reservoirs and stream designations.
F. Other Reports
G. Confirm Date and Location of Next Meeting –Spring 2018, Potential Dates April 2 or 9; Fall 2018 Potential Dates Aug 13 or 20; 1pm, NCTCOG, 616 Six Flags Drive,

Centerpoint Two Building, First Floor Transportation Council Room, Arlington, Texas 76011

VII. ADJOURNMENT

There being no further business, the meeting of the RCWPG adjourned at approximately 3:35 P.M.

_____
JODY PUCKETT, Chair

ATTACHMENT F

Reports on Stakeholder Meetings

Brackish Groundwater Production Zones Stakeholder Meeting – Trinity Aquifer – Monday May 8, 2017

Texas Water Development Board

Brackish Groundwater Production Zones Stakeholder Meeting – Trinity Aquifer

The stakeholder meeting for Trinity Aquifer brackish groundwater mapping projects will be held on **Monday, May 8, 2017, from 11:00 a.m. to 1:00 pm** at the Stephen F. Austin Building, Room 170, located at 1700 N. Congress Avenue, Austin, Texas 78701.

In 2015, the 84th Texas Legislature passed House Bill 30 directing the Texas Water Development Board (TWDB) to identify and designate brackish groundwater production zones in the state's aquifers. Brackish groundwater is groundwater that is not fresh, ranging from 1,000 parts per million of total dissolved solids (the top end of fresh water) to 10,000 parts per million (seawater is about 35,000 parts per million).

The bill requires the TWDB to (1) determine the amount of brackish groundwater that a brackish groundwater production zone is capable of producing over 30- and 50-year periods without causing a significant impact to water availability or water quality, (2) provide recommendations for reasonable monitoring to observe the effects of brackish groundwater production, and (3) work with groundwater conservation districts and stakeholders in this effort.

Everyone is invited and encouraged to attend and participate. Presentation topics include:

- Opening remarks by the TWDB contract manager
- Introduction to the project team, objectives, and methods
- Discussion of the aquifer, including:
  - Classification of brackish groundwater salinity
  - Evaluation of potential production areas
  - Modeling of the potential production areas
  - Questions, comments, and input from stakeholders

Because the state's databases do not include all water wells, it is particularly important for us to hear how people may or may not be using brackish groundwater.

The presentation and a summary of questions and answers from the meeting will be posted on the TWDB website. Additional information about the projects can be found at www.twdb.texas.gov/innovativewater/bracs/projects/HB30_Trinity/index.asp.

If you have any questions or need more information, please do not hesitate to contact me or Mark Robinson (512-463-7657; Mark.Robinson@twdb.texas.gov).

Sincerely,

Erika Mancha, E.I.T.
Manager, Innovative Water Technologies
Texas Water Development Board
512-963-7932
erika.mancha@twdb.texas.gov

Monthly Letter Progress Report #14:
Period 8, Fiscal Year 2017
Study of Brackish Aquifers in Texas –
Project No. 4 –Trinity Aquifer
TWDB Contract No. 1600011950

Submitted to

Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711

Prepared by:

SOUTHWEST RESEARCH INSTITUTE®

Southwest Research Institute
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May 25, 2017

Monthly Letter Progress Report #14
April 15, 2017-May 12, 2017
Study of Brackish Aquifers in Texas – Project No. 4 – Trinity Aquifer
TWDB Contract No. 1600011950

1.0 Budget and Expenses

This report summarizes the project status and costs for the billing period from Contract Approval Date (January 6, 2016) through the end of Period 8 of Fiscal Year 2017 (May 12, 2017). The total expenses through this period are $223,409.14. A breakdown of the budget by task is provided in Table 1. A copy of the progress report has been sent to Texas Water Development Board (TWDB) along with the monthly invoice.

2.0 Progress on Tasks

This report summarizes activities on project tasks during Fiscal Year 2017, Period 8 (encompassing April 15, 2017-May 12, 2017) and represents the fourteenth progress report on this contract.

Task 1: Project Management

No work was performed on this task during this reporting period.

Task 2: Data Acquisition and Method Development

Task 2 has been subdivided into four subtasks. Progress on activities for the subtasks is as follows:

Subtask 2.1 Acquisition and Initial Analysis of Groundwater Samples

No work was performed on this subtask during this reporting period.

Subtask 2.2 Acquisition and Initial Analysis of Geophysical Logs

Geophysical logs have been correlated with chemical-analysis data. Work on the well log database containing spatial attributes of all logs utilized in this study, with care to adhere to BRACS format, has continued. The project database of water-quality data relevant to the project domain continues to be developed. Hydrochemical facies analyses for the project are underway.

Subtask 2.3 Develop Technical Approach for Estimating Total Dissolved Solids from Geophysical Logs

The technical approach for estimating total dissolved solids from geophysical logs has been developed and is being implemented using available geophysical logs.

Subtask 2.4 Use Geophysical Log Interpretation to Analyze Stratigraphy and Map Fresh, Brackish, and Saline Groundwater

Gamma ray logs are being used to help complete the stratigraphic framework model. In addition, resistivity and SP logs are being used for stratigraphic interpretation at wells which do not have gamma ray logs. Resistivity and SP logs are also being utilized for salinity analysis. SP data are mostly limited to sand-dominated units such as the Hosston and Hensell formations, but have been effective for some Cow Creek producing zones. Digitized porosity logs (neutron and sonic) were evaluated for use in the study.

Task 3: Develop a Stratigraphic Framework Model of the Trinity Aquifer and Calculate Brackish Water Volumes

Task 3 has been subdivided into two subtasks. Progress on activities for the subtasks is as follows:

Subtask 3.1 Extend Stratigraphy for the Hill Country Trinity

The technical literature has been examined for useful and relevant stratigraphic and structural information and data (e.g., cross-sections, fence diagrams, structure contour maps, well header information, stratigraphic horizon picks from wells, and fault maps). Geophysical logs from the BRACS well database including stratigraphic information, specifically stratigraphic horizon picks and lithologic information, have been evaluated, quality controlled, and re-interpreted as needed. Log information from the IHS database has been evaluated and wells which have logs that penetrate the Trinity Aquifer were used for stratigraphic interpretation. The stratigraphic framework is nearing completion.

Subtask 3.2 Determine Volumes of Fresh, Brackish, and Saline Groundwater

Evaluation of the relationship between electrical resistivity and fluid salinity continued during this period. The determination of TDS from digitized well log curves is nearing completion.

Task 4: Delineate Potential Production Areas

Team members continued the delineation of the potential production zones.

Task 5: Determine the Amount of Brackish Groundwater that can be Produced without

Causing Impact on Lateral and Vertical Fresh Water

Team members have begun modelling groundwater within the Trinity Aquifer using stratigraphic and geochemical data to constrain the model domain.

Task 6: Stakeholder Communication

The second stakeholder meeting for this project to discuss Potential Production Areas was held on May 8th, 2017. Team members prepared and presented a PowerPoint presentation for the meeting.

Task 7: Reporting

Task 7 has been subdivided into 2 subtasks. Progress on the subtasks is as follows:

Subtask 7.1 Project Monitoring Procedures

The project timeline has been reviewed frequently. The project budget has been monitored on a weekly basis using the SwRI Project Cost System. Project activity for each period is summarized in status reports for review by TWDB.

Subtask 7.2 Project Deliverables

Progress on this task during this reporting period has included preparing and delivering "Monthly Letter Progress Report #13: Period 7, Fiscal Year 2017."

The Stakeholder Presentation on proposed Potential Production Areas was delivered to TWDB. Team members have continued work toward completing all project deliverables. Work on the Draft Final Report has continued.

3.0 Planned Activities for the Next Reporting Period (Fiscal Year 2017, Period 8)

Task 1: Project Management

The agreements with the two in-kind teaming partners, EAA and BSEACD, will be submitted to TWDB as soon as they have been finalized.

Task 2: Data Acquisition and Method Development

Task 2 has been subdivided into four subtasks. Planned activities for the subtasks are as follows:

Subtask 2.1 Acquisition and Initial Analysis of Groundwater Samples

No work on this task is expected to occur over the next reporting period.

Subtask 2.2 Acquisition and Initial Analysis of Geophysical Logs

Geophysical logs will continue to be correlated with chemical-analysis data. Plots of regional chemistry across the study region will be created for each aquifer. The database with spatial attributes of all logs utilized in this study, with care to adhere to BRACS format, will be finalized. The project database of water quality data relevant to the project domain and preliminary hydrochemical facies analysis for the project domain will be finalized using TWDB's groundwater database.

Subtask 2.3 Develop Technical Approach for Estimating Total Dissolved Solids from Geophysical Logs

Efforts towards developing a method for correlating TDS data and geophysical log attributes will conclude. Deep and shallow resistivity curves will be cross-plotted so that the resistivity of the fluid can be estimated. Feedback from the TWDB regarding the method for correlating TDS data and geophysical log attributes will be incorporated into the approach.

Subtask 2.4 Use Geophysical Log Interpretation to Analyze Stratigraphy and Map Fresh, Brackish, and Saline Groundwater

Shallow and deep resistivity logs and SP logs will be utilized for salinity analysis.

Task 3: Develop a Stratigraphic Framework Model of the Trinity Aquifer and Calculate Brackish Water Volumes

Task 3 has been subdivided into two subtasks. Planned activities for the subtasks are as follows:

Subtask 3.1 Extend Stratigraphy for the Hill Country Trinity

The framework model will be completed over the next reporting period.

Subtask 3.2 Determine Volumes of Fresh, Brackish, and Saline Groundwater

Evaluation of the relationship between electrical resistivity and fluid salinity will conclude during the next period.

Task 4: Delineate Potential Production Areas

Work on identifying the potential production zones will be completed during the next period.

Task 5: Determine the Amount of Brackish Groundwater that can be Produced without

Causing Impact on Lateral and Vertical Fresh Water

Efforts toward determining the amount of brackish groundwater available for production without causing negative impact on lateral and vertical fresh water will be completed during the next reporting period.

Task 6: Stakeholder Communication

No work is expected to occur over the next reporting period.

Task 7: Reporting

Task 7 has been subdivided into 2 subtasks. Planned activities for the subtasks are as follows:

Subtask 7.1 Project Monitoring Procedures

The project timeline will continue to be reviewed frequently. The project budget will continue to be monitored on a weekly basis using the SwRI Project Cost System. Project activity will continue to be summarized in status reports for review by TWDB.

Subtask 7.2 Project Deliverables

The fourteenth (current) progress report (covering Period 8, FY 2017) will be submitted to TWDB during Fiscal Year 2017, Period 9.

Team members will consider and incorporate feedback regarding the Draft Methods Report from TWDB as appropriate. Work on the Draft Final Report will continue.

4.0 Problems/Issues and Actions Required/Taken

No problems or issues were encountered during this period.

Table 1. Project Budget Versus Expenses

Task	Description	Task Budget	Spent This Period Per Task	Total Spent Per Task	Remaining Task Budget
1	Project Management	$22,640.00	$0.00	$16,872.03	$5,767.97
2	Data Acquisition and Method Development	$134,555.00	$2,657.19	$107,732.57	$26,822.43
3	Develop a Stratigraphic Framework Model of the Trinity Aquifer and Calculate Brackish Water Volumes	$116,878.00	$3,579.76	$67,236.96	$49,641.04
4	Delineate Potential Production Areas	$40,001.00	$0.00	$2,259.39	$37,741.61
5	Determine the Amount of Brackish Groundwater that can be Produced without Causing Impact on Lateral and Vertical Fresh Water	$56,740.00	$18,626.48	$19,627.44	$37,112.56
6	Stakeholder Communication	$35,631.00	$95.75	$95.75	$35,535.25
7	Reporting	$13,555.00	$0.00	$9,585.00	$3,970.00
Total		$420,000.00	$24,959.18	$223,409.14	$196,590.86

Monthly Letter Progress Report #17:
Period 11, Fiscal Year 2017
Study of Brackish Aquifers in Texas –
Project No. 4 –Trinity Aquifer
TWDB Contract No. 1600011950

Submitted to

Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711

Prepared by:

SOUTHWEST RESEARCH INSTITUTE®

Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238-5166
210-684-5111

August 18, 2017

Monthly Letter Progress Report #17
July 8, 2017 – August 4, 2017
Study of Brackish Aquifers in Texas – Project No. 4 – Trinity Aquifer
TWDB Contract No. 1600011950

1.0 Budget and Expenses

This report summarizes the project status and costs for the billing period from Contract Approval Date (January 6, 2016) through the end of Period 11 of Fiscal Year 2017 (August 4, 2017). A copy of the progress report has been sent to Texas Water Development Board (TWDB) along with the monthly invoice.

2.0 Progress on Tasks

This report summarizes activities on project tasks during Fiscal Year 2017, Period 11 (encompassing July 8, 2017 – August 4, 2017) and represents the seventeenth progress report on this contract.

Task 1: Project Management

No work was performed on this task during this reporting period.

Task 2: Data Acquisition and Method Development

Task 2 has been subdivided into four subtasks. Progress on activities for the subtasks is as follows:

Subtask 2.1 Acquisition and Initial Analysis of Groundwater Samples

Work on this subtask has been completed.

Subtask 2.2 Acquisition and Initial Analysis of Geophysical Logs

Work on this subtask has been completed.

Subtask 2.3 Develop Technical Approach for Estimating Total Dissolved Solids from Geophysical Logs

Work on this subtask has been completed.

Subtask 2.4 Use Geophysical Log Interpretation to Analyze Stratigraphy and Map Fresh, Brackish, and Saline Groundwater

Work on this subtask has been completed.

Task 3: Develop a Stratigraphic Framework Model of the Trinity Aquifer and Calculate Brackish Water Volumes

Task 3 has been subdivided into two subtasks. Progress on activities for the subtasks is as follows:

Subtask 3.1 Extend Stratigraphy for the Hill Country Trinity

Work on this subtask has been completed.

Subtask 3.2 Determine Volumes of Fresh, Brackish, and Saline Groundwater

Work on this subtask has been completed.

Task 4: Delineate Potential Production Areas

Work on this subtask has been completed.

Task 5: Determine the Amount of Brackish Groundwater that can be Produced without Causing Impact on Lateral and Vertical Fresh Water

Work on this subtask has been completed.

Task 6: Stakeholder Communication

No work was performed on this subtask during this reporting period.

Task 7: Reporting

Task 7 has been subdivided into 2 subtasks. Progress on the subtasks is as follows:

Subtask 7.1 Project Monitoring Procedures

The project timeline has been reviewed frequently. The project budget has been monitored on a weekly basis using the SwRI Project Cost System. Project activity for each period is summarized in status reports for review by TWDB.

Subtask 7.2 Project Deliverables

Progress on this task during this reporting period has included preparing and delivering "Monthly Letter Progress Report #16: Period 10, Fiscal Year 2017."

Comments on the Draft Final Report were received from TWDB, and responses to those comments were incorporated into the Final Report.

3.0 Planned Activities for the Next Reporting Period (Fiscal Year 2017, Period 10)

Task 1: Project Management

The agreements with the two in-kind teaming partners, EAA and BSEACD, will be submitted to TWDB as soon as they have been finalized.

Task 2: Data Acquisition and Method Development

Task 2 has been subdivided into four subtasks. Planned activities for the subtasks are as follows:

Subtask 2.1 Acquisition and Initial Analysis of Groundwater Samples

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Subtask 2.2 Acquisition and Initial Analysis of Geophysical Logs

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Subtask 2.3 Develop Technical Approach for Estimating Total Dissolved Solids from Geophysical Logs

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Subtask 2.4 Use Geophysical Log Interpretation to Analyze Stratigraphy and Map Fresh, Brackish, and Saline Groundwater

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Task 3: Develop a Stratigraphic Framework Model of the Trinity Aquifer and Calculate Brackish Water Volumes

Task 3 has been subdivided into two subtasks. Planned activities for the subtasks are as follows:

Subtask 3.1 Extend Stratigraphy for the Hill Country Trinity

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Subtask 3.2 Determine Volumes of Fresh, Brackish, and Saline Groundwater

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Task 4: Delineate Potential Production Areas

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Task 5: Determine the Amount of Brackish Groundwater that can be Produced without Causing Impact on Lateral and Vertical Fresh Water

Work on this subtask has been completed; no work on this task is expected to occur over the next reporting period.

Task 6: Stakeholder Communication

No work is expected to occur over the next reporting period.

Task 7: Reporting

Task 7 has been subdivided into 2 subtasks. Planned activities for the subtasks are as follows:

Subtask 7.1 Project Monitoring Procedures

The project timeline will continue to be reviewed frequently. The project budget will continue to be monitored on a weekly basis using the SwRI Project Cost System. Project activity will continue to be summarized in status reports for review by TWDB.

Subtask 7.2 Project Deliverables

The seventeenth (current) progress report (covering Period 11, FY 2017) will be submitted to TWDB during Fiscal Year 2017, Period 12.

Team members will consider and incorporate feedback from TWDB regarding the Draft Final Report as appropriate. The Final Report will be completed and submitted to TWDB.

4.0 Problems/Issues and Actions Required/Taken

No problems or issues were encountered during this period.

Northern Trinity Brackish Groundwater Study Results Stakeholder Meeting – November 1, 2017 – Region G Water Planning Group

Northern Trinity Brackish Groundwater Study results Stakeholder Meeting

November 1, 2017
Region G Planning Group
Waco, Texas
Presented by Mark Robinson
Innovative Water Technologies

- The following presentation is based upon professional research and analysis within the scope of the Texas Water Development Board's statutory responsibilities and priorities but, unless specifically noted, does not necessarily reflect official Board positions or decisions.

Brackish Groundwater Production Zones

- In 2015, the 84th Texas Legislature passed House Bill 30, directing the TWDB to
  - (1) identify and designate brackish groundwater production zones in four aquifers and to report to the legislature by December 1, 2016,
  - (2) determine the volumes of groundwater that a brackish groundwater production zone can produce over 30- and 50-year periods without causing significant impact to water availability or water quality,
  - (3) work with groundwater conservation districts and stakeholders, and
  - (4) make recommendations on reasonable monitoring to observe the effects of brackish groundwater production within the zone.
- Furthermore, the TWDB shall identify and designate brackish groundwater production zones in all aquifers in the state by the legislatively mandated date of December 1, 2022.
- www.twdb.texas.gov/innovativewater/bracs/HB30.asp

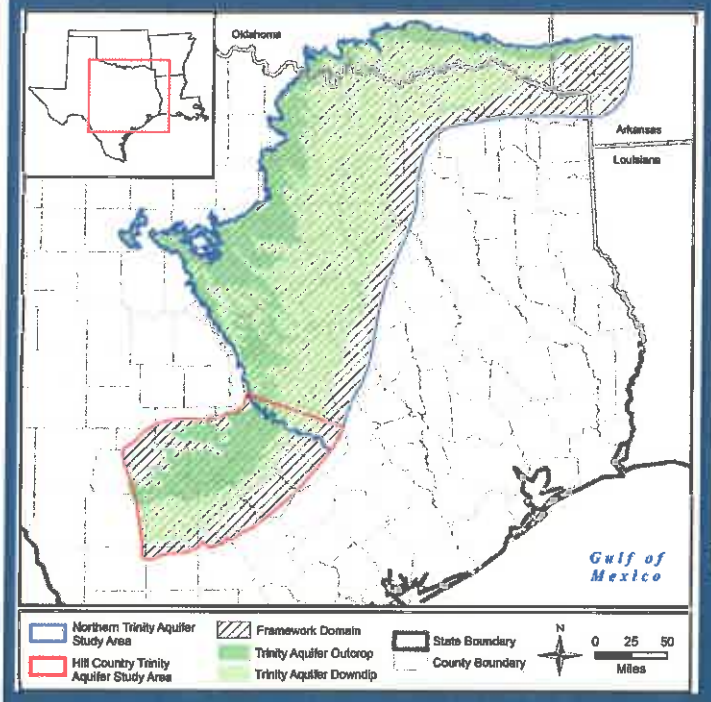
Project Team

- Leanne Stepchinski (SwRI)
  - Project management, hydrogeology
- Ronald Green (SwRI)
  - Hydrogeology
- Paul Bertetti (SwRI)
  - Geochemistry
- Ronald McGinnis (SwRI)
  - Structure and stratigraphy, log interpretation
- Nathaniel Toll (SwRI)
  - Hydrogeology, groundwater modelling
- Beth Fratesi (SwRI)
  - Hydrogeology, groundwater modelling
- Daniel Lupton (INTERA, Inc.)
  - Hydrogeology, log analysis, structure and stratigraphy, geochemistry
- Neil Deeds (INTERA, Inc.)
  - Hydrogeology, log analysis, structure and stratigraphy, geochemistry
- Jevon Harding (INTERA, Inc.)
- Rebecca Nunu, Kirk Gulliver, and Mauricio Flores (SwRI)
- Marcus Gary and Steve Johnson (EAA)
- Brian Smith and Brian Hunt (BSEACD)

Project Objectives and Accomplishments

- Objective: Evaluate the fresh, brackish, and saline groundwater resources of the Trinity Aquifer
- Accomplishments:
  - Evaluated all groundwater, water chemistry, and geophysical log data available in the study area
  - Developed a stratigraphic framework model with available structural, stratigraphic, and lithologic data
  - Developed and employed a technical approach for estimating total dissolved solids (TDS) from geophysical logs
  - Delineated fresh, brackish, and saline groundwater both horizontally and vertically in the aquifers of the project area
  - Delineated Potential Production Areas (PPAs)
  - Calculated brackish groundwater volumes in the PPAs
  - Calculated potential 30- and 50- year drawdowns in the PPAs

Geology of the Trinity Aquifer



Northern Trinity Hydrostratigraphic Units

Period	Age	Age M.Y.	Group	North Formation	Central Formation	South Formation	Hill Country Formation
Cretaceous	Cenomanian	97.0	Washita	Grayson Marl	Buda	Buda	Buda
					Del Rio	Del Rio	Del Rio
				Mainstreet	Georgetown	Georgetown	Georgetown
				Pawpaw / Weno			
				Denton			
				Duck Creek			
				Fort Worth			
	Albian		Fredericksburg	Kiamichi	Kiamichi	Kiamichi	Edwards
				Goodland	Edwards	Edwards	
					Comanche Peak	Comanche Peak	
				Walnut Clay	Walnut Clay	Walnut Clay	
	Aptian	112.0	Trinity	Antlers	Paluxy	Paluxy	Paluxy
					Glen Rose	Glen Rose	Upper Glen Rose / Lower Glen Rose
					Twin Mountains: Hensell	Travis Peak: Hensell	Hensell
						Pearsall	Cow Creek
					Twin Mountains: Pearsall	Travis Peak: Cow Creek	Hammett
						Hammett	Sligo
						Sligo	Hosston
	Pre-Aptian	124.5			Twin Mountains: Hosston	Travis Peak: Hosston	
Pre-Cretaceous	Tithonian	145.0	Pre-Cretaceous	Pre-Cretaceous	Pre-Cretaceous	Pre-Cretaceous	Pre-Cretaceous

Hill Country Trinity Hydrostratigraphic Units

Northern Trinity Geologic Framework:
GAM Hydrostratigraphy Work Flow (Kelley and others, 2014)

Build Well Log Database
- BRACS, BEG, TCEQ PWS, Q-logs, commercial sources

Correlate Stratigraphic Surfaces
- Original work but built off of previous studies

Interpret Lithologies from Well Logs
- Vertical record of interbedded lithologies – 5 to 10 foot scale

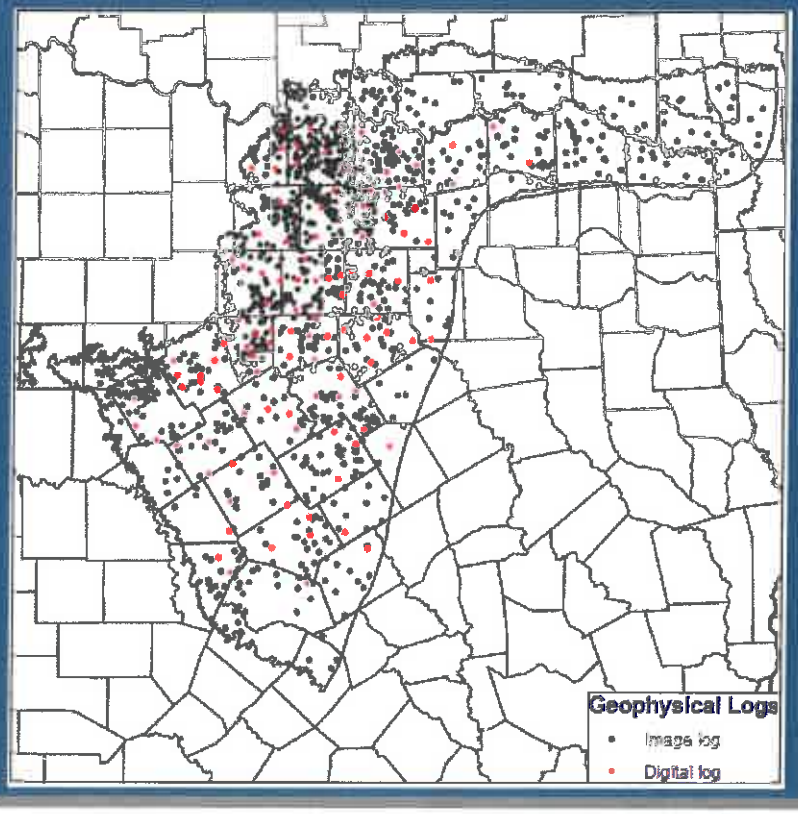
Map Layer Thicknesses and Compositions
- Structure, isopach, net sandstone maps

Interpret Depositional Environments
- Enhance predictability between wells – defines properties

Build Well Log Database (Kelley and others, 2014)

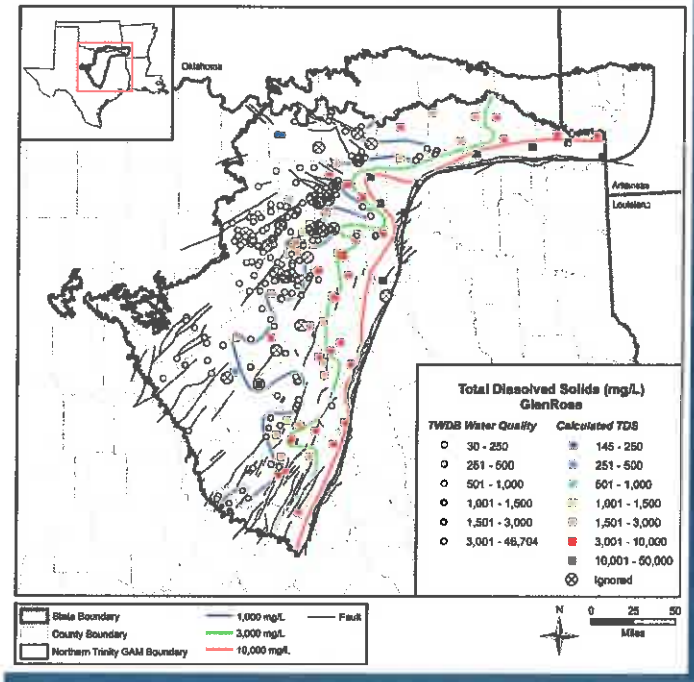
The well log database for the Northern Trinity Aquifer GAM utilized:

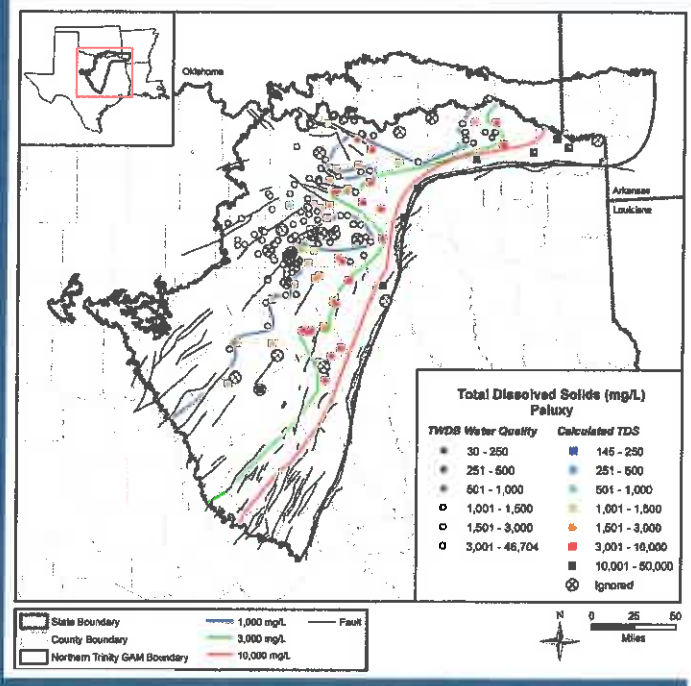
- 1193 wells with depth registered image logs
- 109 wells with digitized logs



Northern Trinity Salinity Zones:

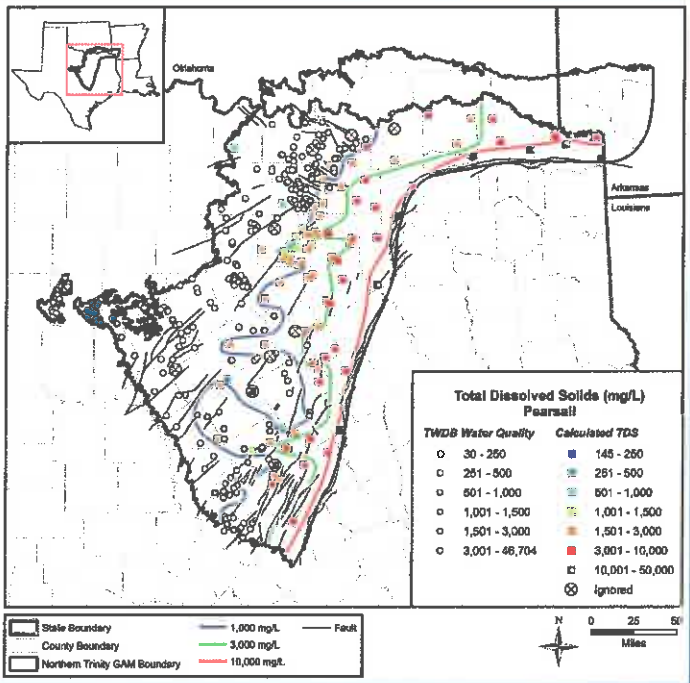
Measured and calculated water quality for Glen Rose and Paluxy formations

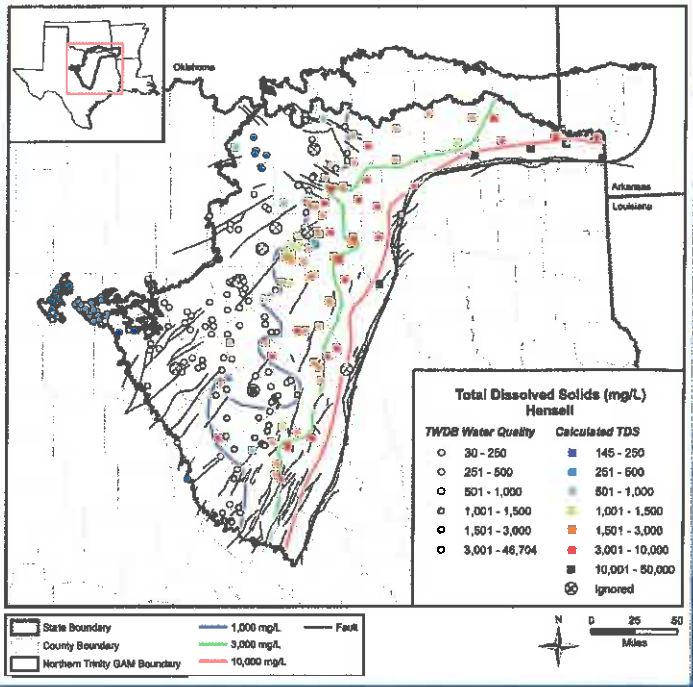




Northern Trinity Salinity Zones:

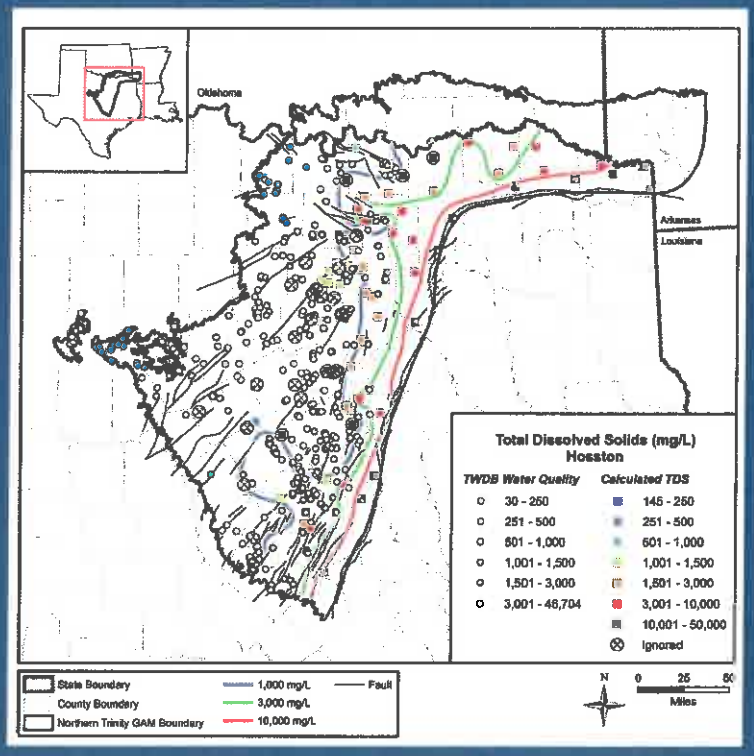
Measured and calculated water quality for Pearsall and Hensell formations





Northern Trinity Salinity Zones:

Measured and calculated water quality for Hosston Formation



Volumes- Northern Trinity

The volumes of fresh, moderately saline, slightly saline, very saline, and total groundwater volumes in the Northern Trinity Aquifer:

Aquifer Unit	Total Volume (Acre-feet)				
	Fresh	Slightly saline	Moderately saline	Very saline	Total
Paluxy	114,748,000	80,676,000	64,503,000	81,312,000	341,239,000
Glen Rose	107,622,000	137,657,000	114,292,000	79,875,000	439,446,000
Hensell	94,766,000	63,080,000	34,648,000	20,647,000	213,141,000
Pearsall	31,834,000	52,494,000	52,433,000	31,124,000	167,885,000
Hosston	171,110,000	246,770,000	232,964,000	256,357,000	907,201,000

Potential Production Areas

- House Bill 30 required the identification of potential brackish groundwater production zones.
- Potential production zones are zones that could yield significant quantities of brackish water for 30-50 years or more without impacting fresh water sources.
- The bill prescribed certain criteria the production zones must meet.

> *(5) identification and designation of local or regional brackish groundwater production zones in areas of the state with moderate to high availability and productivity of brackish groundwater that can be used to reduce the use of fresh groundwater and that:*
>
> *Excerpt H.B. No. 30*

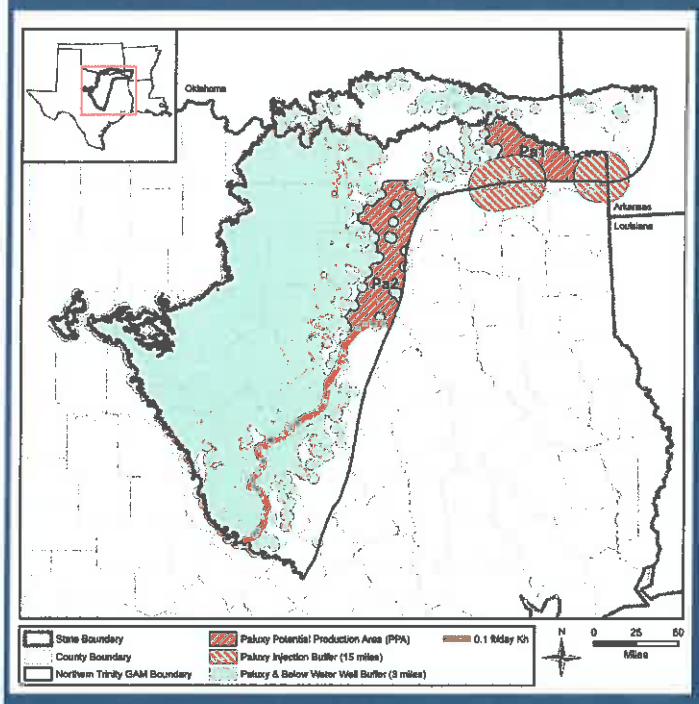
Potential Production Areas

- Exclusion criteria enumerated in H.B. No. 30
  - Separation by hydrogeologic barriers to prevent impacts on water availability and water quality in fresh groundwater sources
  - Not located in the Edwards Aquifer under the jurisdiction of the Edwards Aquifer Authority
  - Not in the boundaries of:
    - Barton Springs-Edwards Aquifer Conservation District
    - Harris-Galveston
    - Fort Bend Subsidence District
  - Not in a brackish groundwater source that is already in use by municipal, domestic, or agriculture entities
  - Not in a geologic stratum designated or used for wastewater injection through the use of injection wells

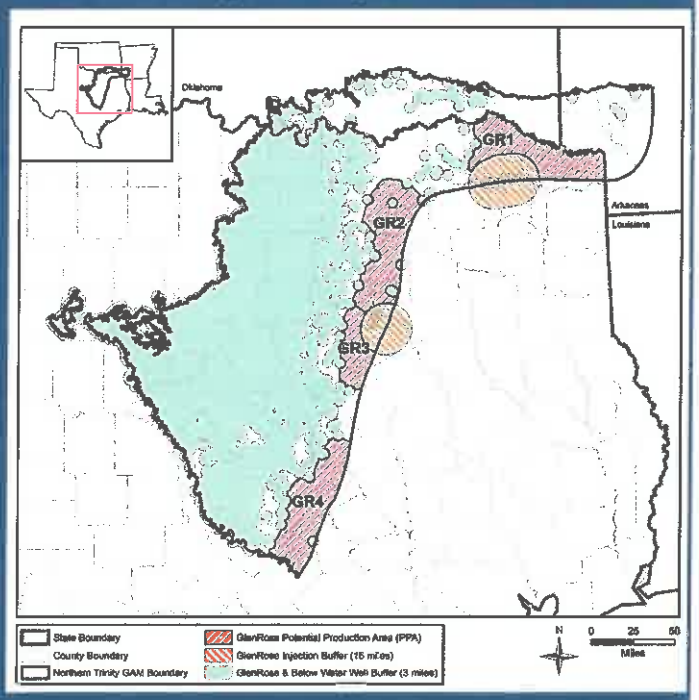
Potential Production Areas

- How exclusion criteria were applied in practice for the Trinity Aquifer
  - A 3 mile buffer is extended around wells identified from public sources with screened intervals in the Trinity Aquifer or fresh water aquifers hydraulically connected to the Trinity Aquifer
  - A 15 mile buffer extended around injection wells identified in the Texas RRC database with screened intervals in the Trinity Aquifer or fresh water aquifers hydraulically connected to the Trinity Aquifer
  - Exclude brackish portions of the Trinity Aquifer hydraulically connected to fresh water aquifers

PPAs – Northern Trinity Aquifer

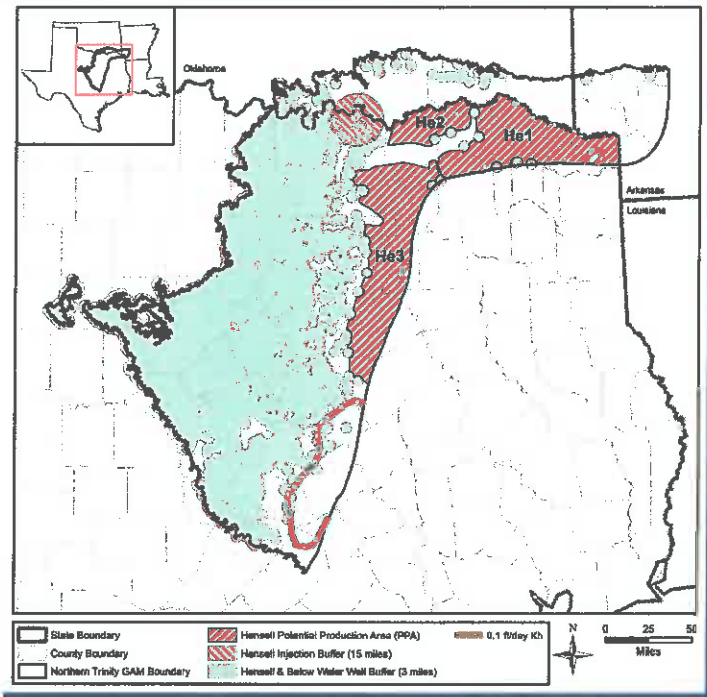


Paluxy PPAs

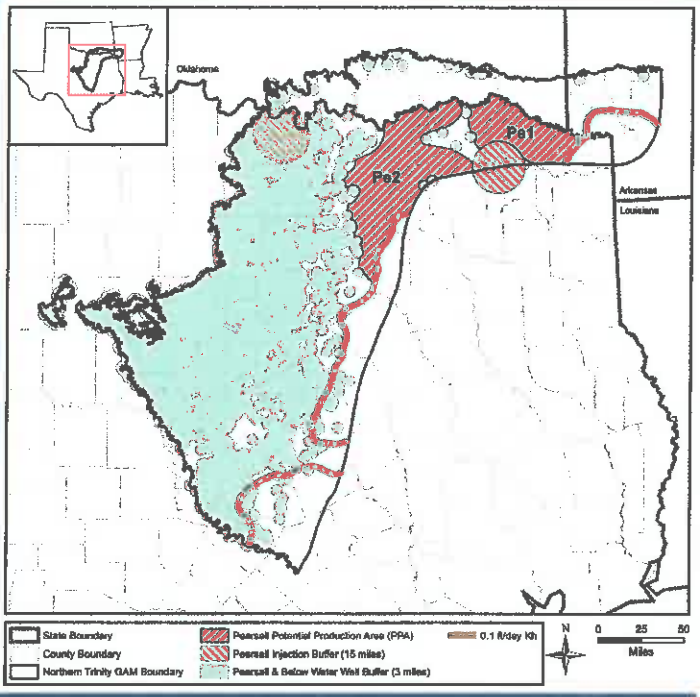


Glen Rose PPAs

PPAs – Northern Trinity Aquifer

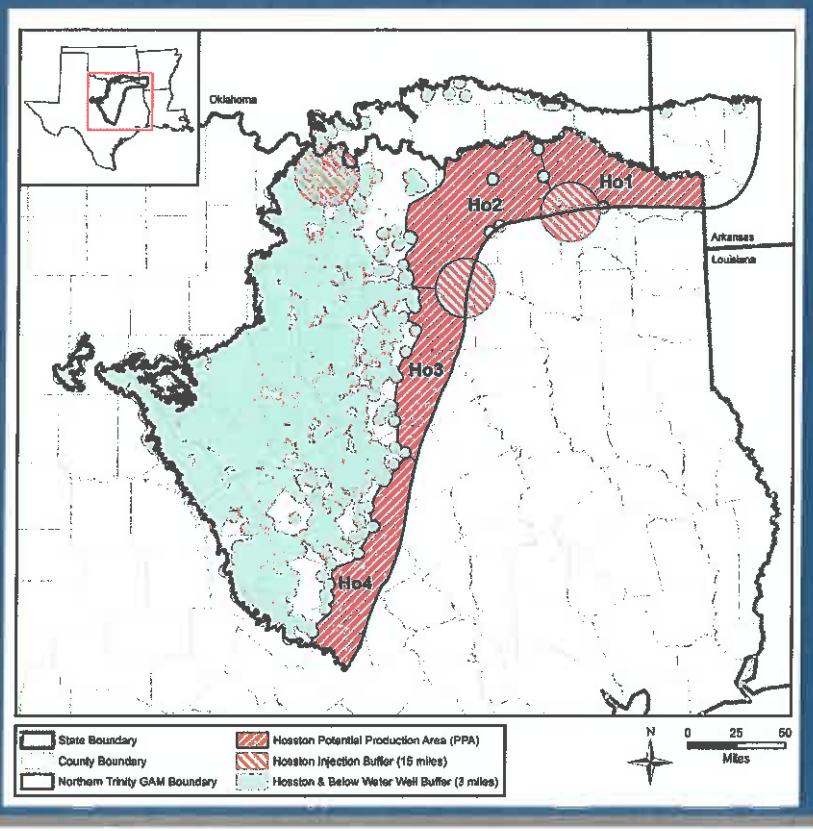


Hensell PPAs



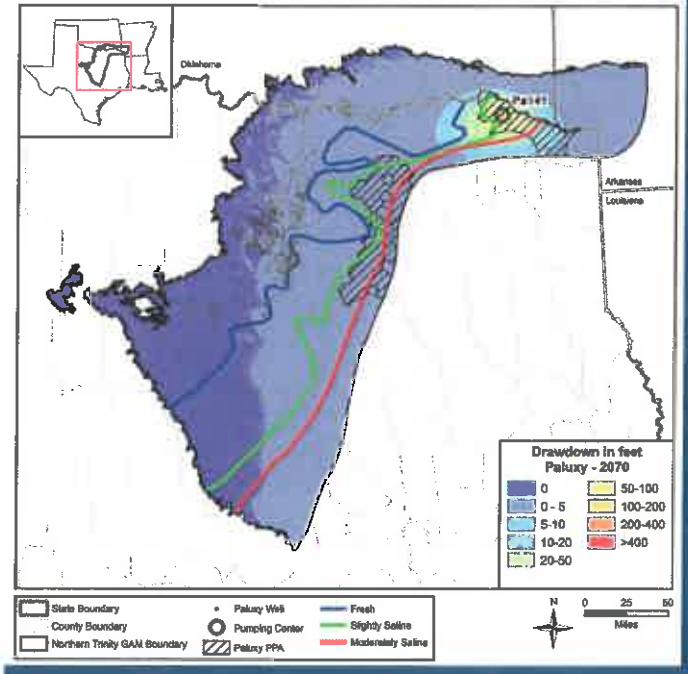
Pearsall PPAs

PPAs – Northern Trinity Aquifer

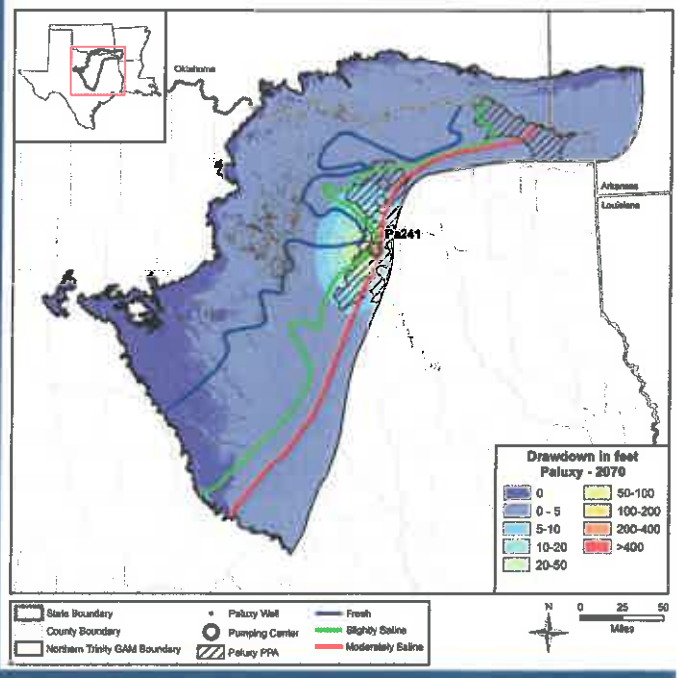


Hosston PPAs

NTA: Paluxy Drawdowns

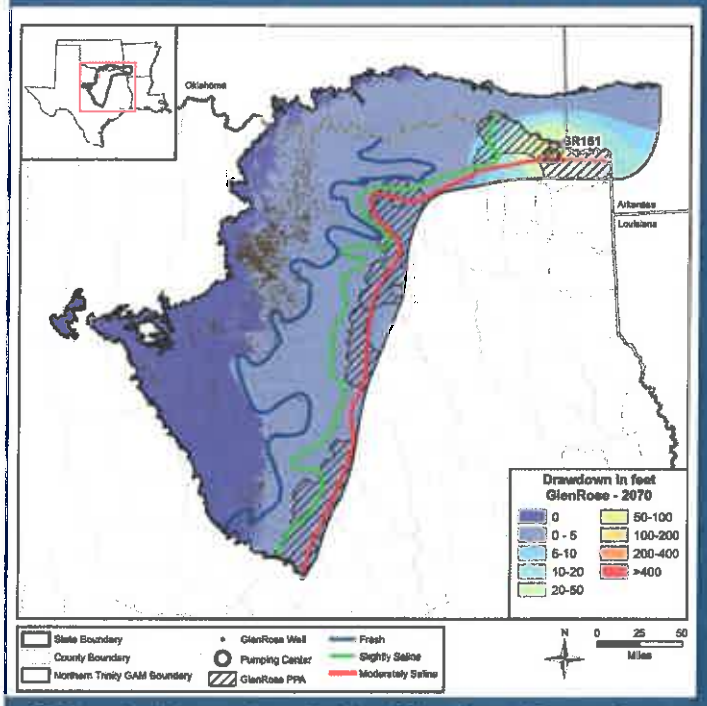


Estimated drawdown in the Paluxy Formation in the North Trinity Aquifer after 50 years of production in PPA 1, Wellfield 1.

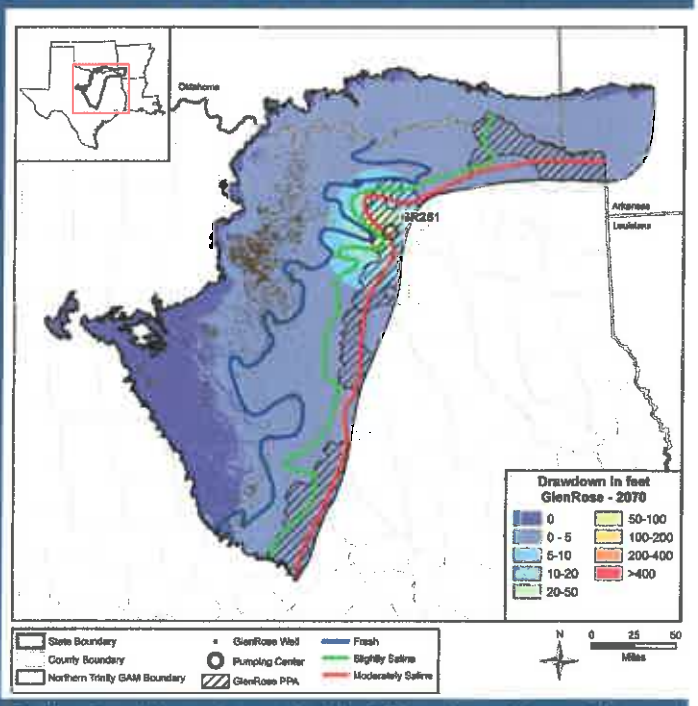


Estimated drawdown in the Paluxy Formation in the North Trinity Aquifer after 50 years of production in Paluxy PPA 2, Wellfield 1.

NTA: Glen Rose Drawdowns

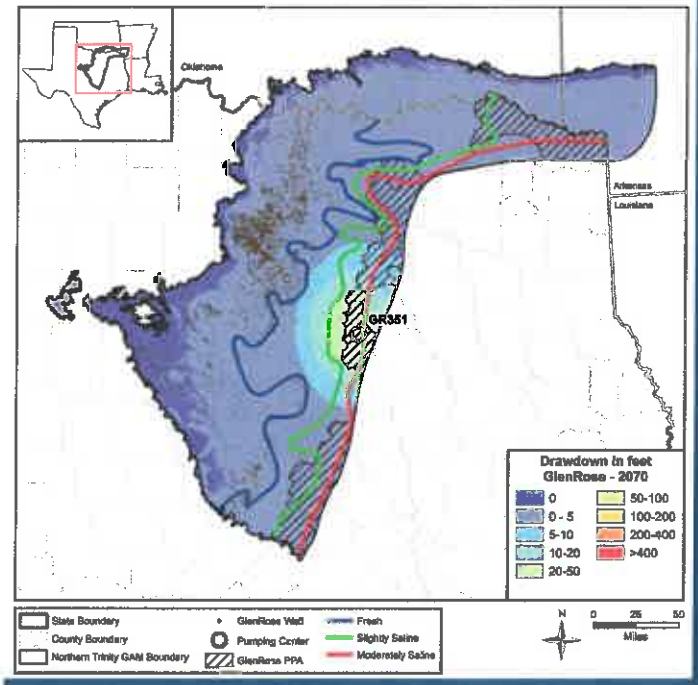


Estimated drawdown in the Glen Rose Formation in the North Trinity Aquifer after 50 years of production in Glen Rose PPA 1, Wellfield 1.

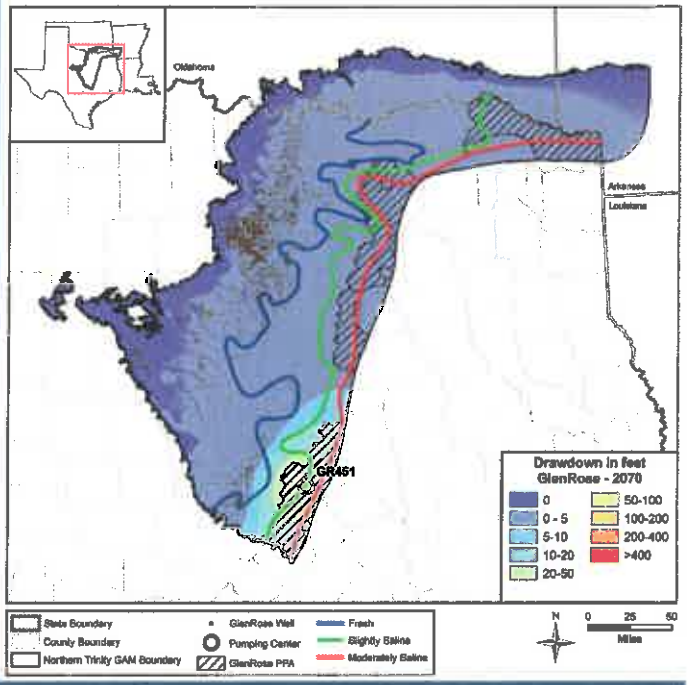


Estimated drawdown in the Glen Rose Formation in the North Trinity Aquifer after 50 years of production in Glen Rose PPA 2, Wellfield 1.

NTA: Glen Rose Drawdowns

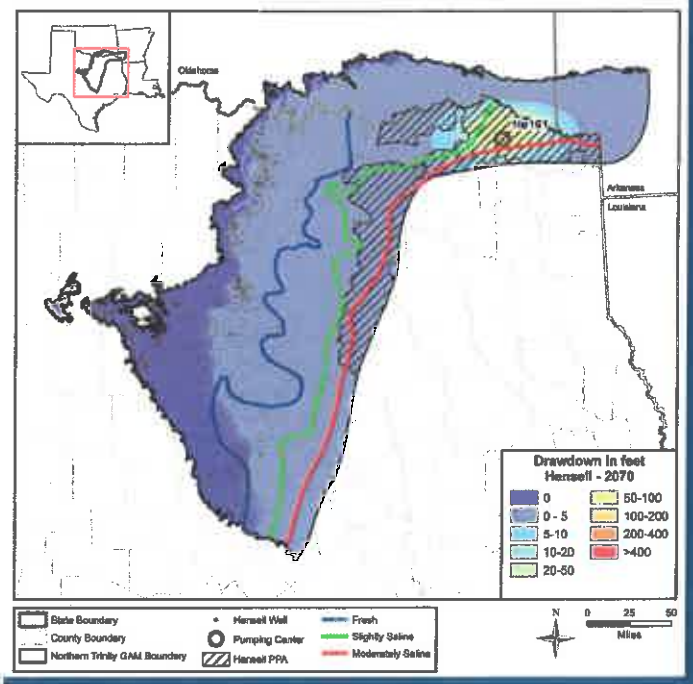


Estimated drawdown in the Glen Rose Formation in the North Trinity Aquifer after 50 years of production in Glen Rose PPA 3, Wellfield 1.

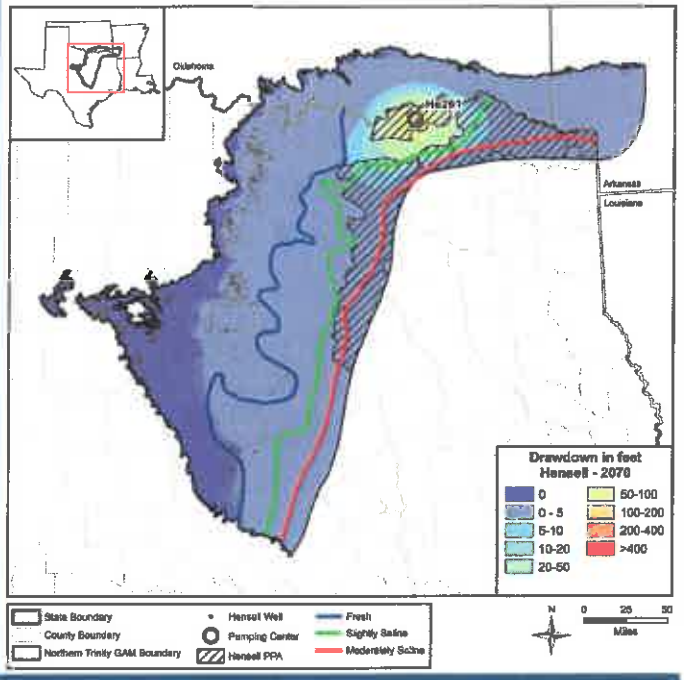


Estimated drawdown in the Glen Rose Formation in the North Trinity Aquifer after 50 years of production in Glen Rose PPA 4, Wellfield 1.

NTA: Hensell Drawdowns

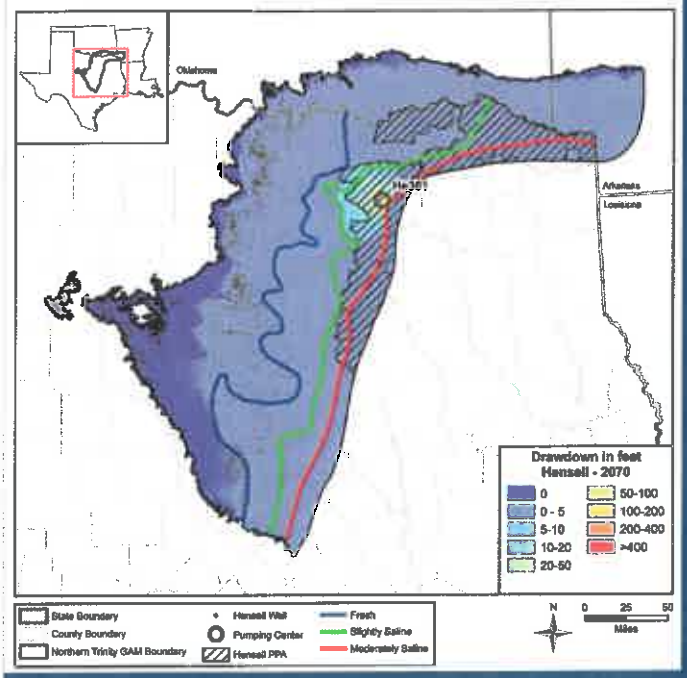


Estimated drawdown in the Hensell Formation in the North Trinity Aquifer after 50 years of production in in Hensell PPA 1, Wellfield 1.

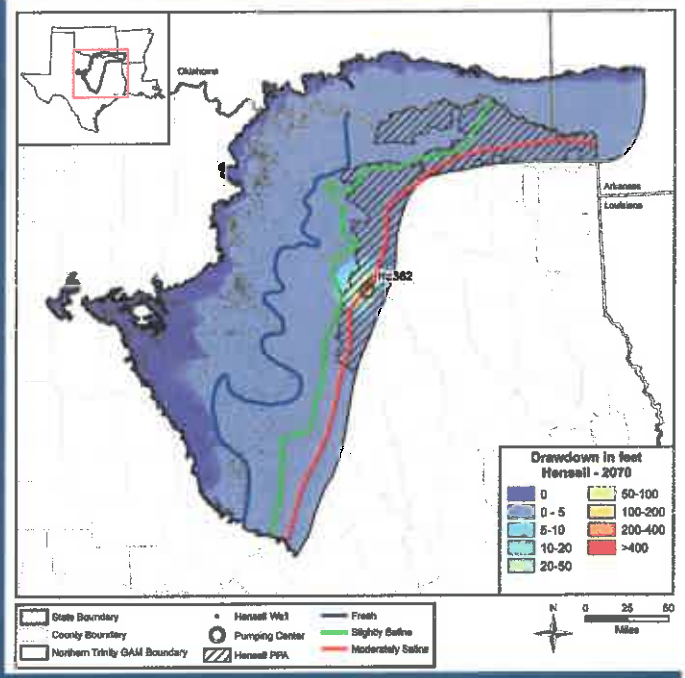


Estimated drawdown in the Hensell Formation in the North Trinity Aquifer after 50 years of production in Hensell PPA 2, Wellfield 1.

NTA: Hensell Drawdowns

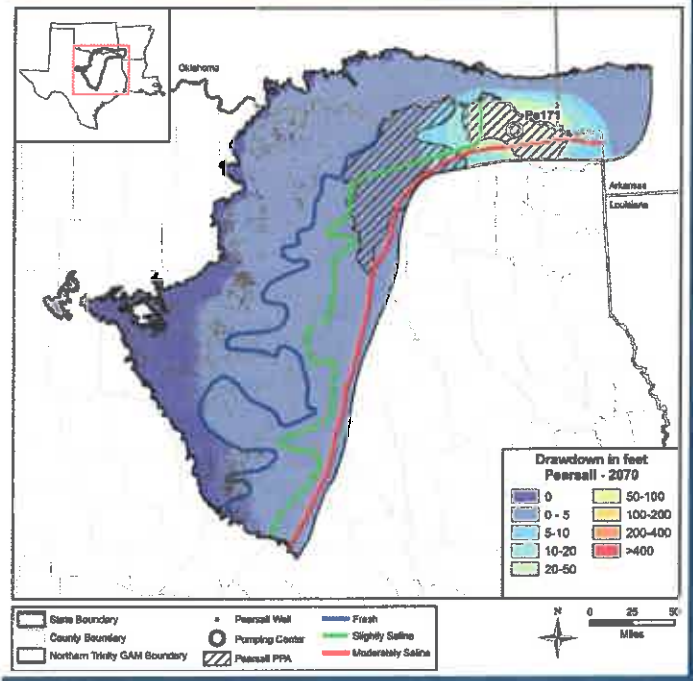


Estimated drawdown in the Hensell Formation in the North Trinity Aquifer after 50 years of production in in Hensell PPA 3, Wellfield 1.

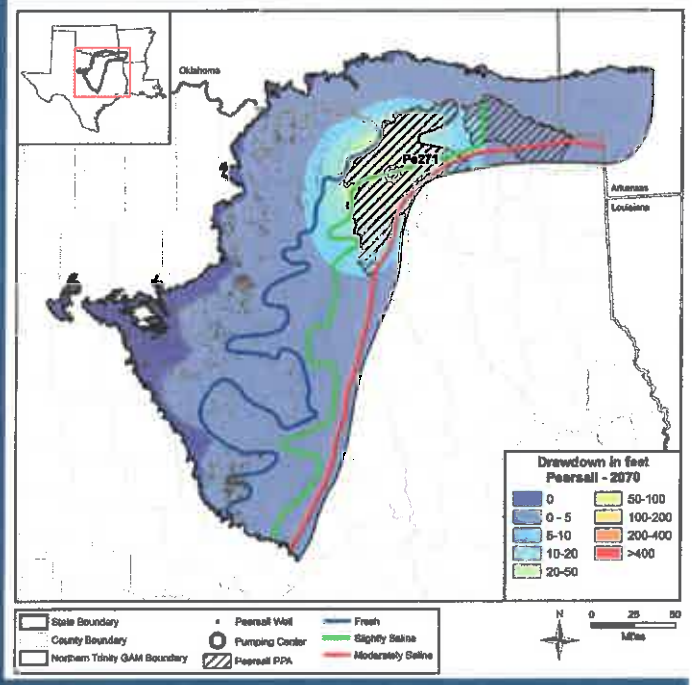


Estimated drawdown in the Hensell Formation in the North Trinity Aquifer after 50 years of production in in Hensell PPA 3, Wellfield 2.

NTA: Pearsall Drawdowns

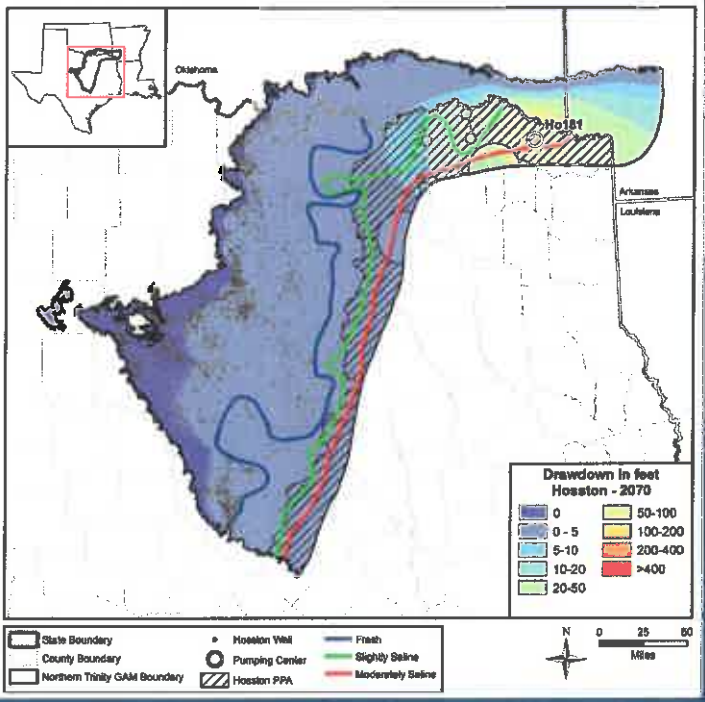


Estimated drawdown in the Pearsall Formation in the North Trinity Aquifer after 50 years of production in Pearsall PPA 1, Wellfield 1.

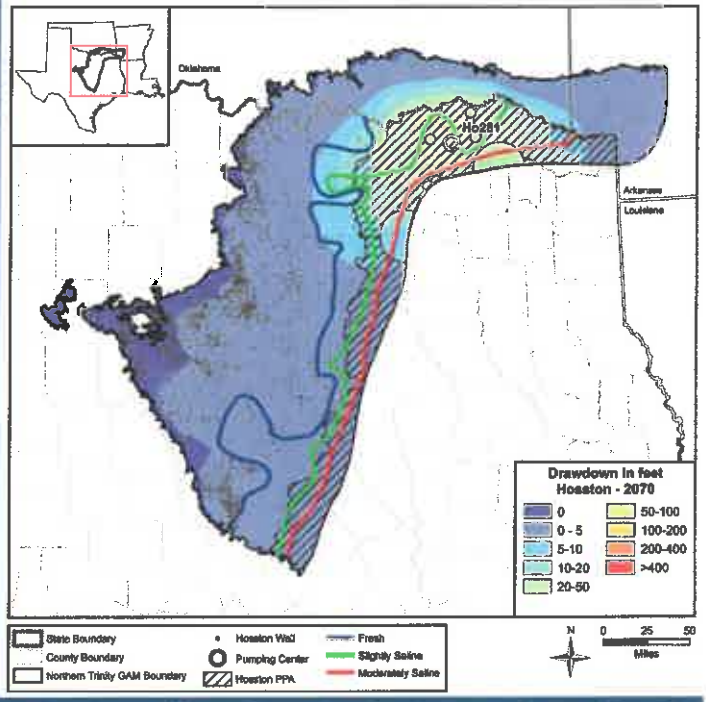


Estimated drawdown in the Pearsall Formation in the North Trinity Aquifer after 50 years of production in in Pearsall PPA 2, Wellfield 1.

NTA: Hosston Drawdowns

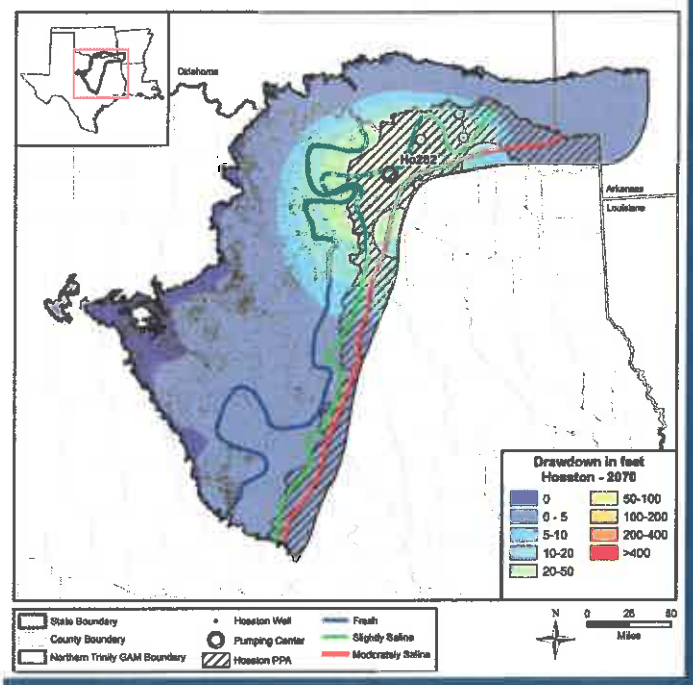


Estimated drawdown in the Hosston Formation in the North Trinity Aquifer after 50 years of production in Hosston PPA 1, Wellfield 1.

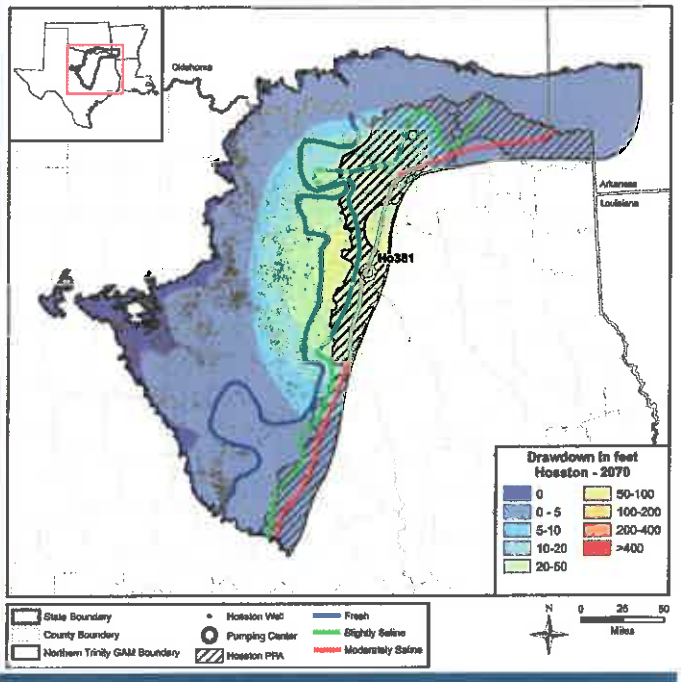


Estimated drawdown in the Hosston Formation in the North Trinity Aquifer after 50 years of production in Hosston PPA 2, Wellfield 1.

NTA: Hosston Drawdowns

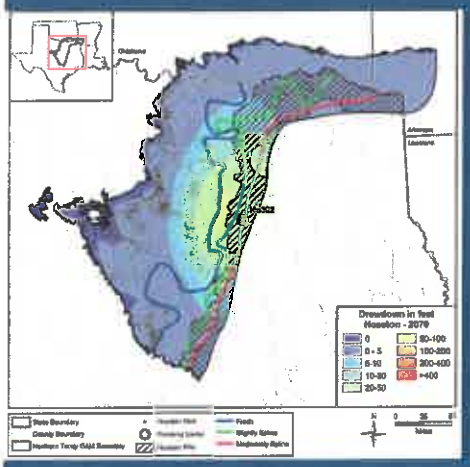


Estimated drawdown in the Hosston Formation in the North Trinity Aquifer after 50 years of production in Hosston PPA 2, Wellfield 2.

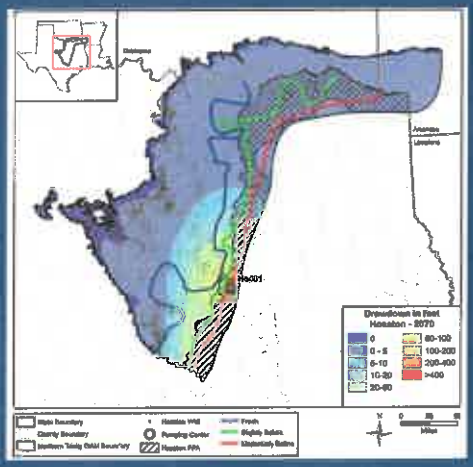


Estimated drawdown in the Hosston Formation in the North Trinity Aquifer after 50 years of production in Hosston PPA 3, Wellfield 1.

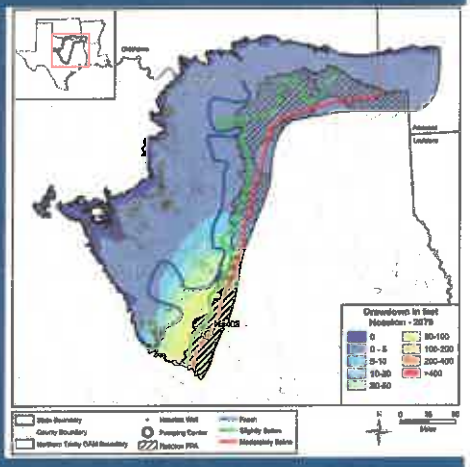
NTA: Hosston Drawdowns



Estimated drawdown in the Hosston Formation in the North Trinity Aquifer after 50 years of production in Hosston PPA 3, Wellfield 2.

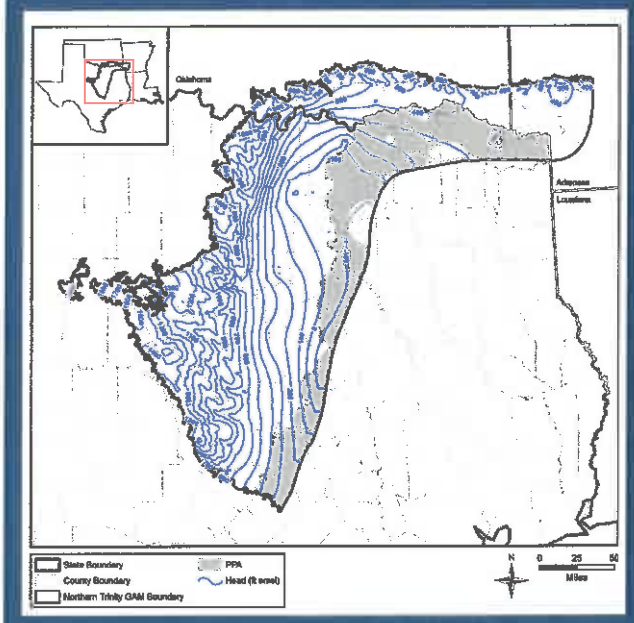


Estimated drawdown in the Hosston Formation in the North Trinity Aquifer after 50 years of production in Hosston PPA 4, Wellfield 1.

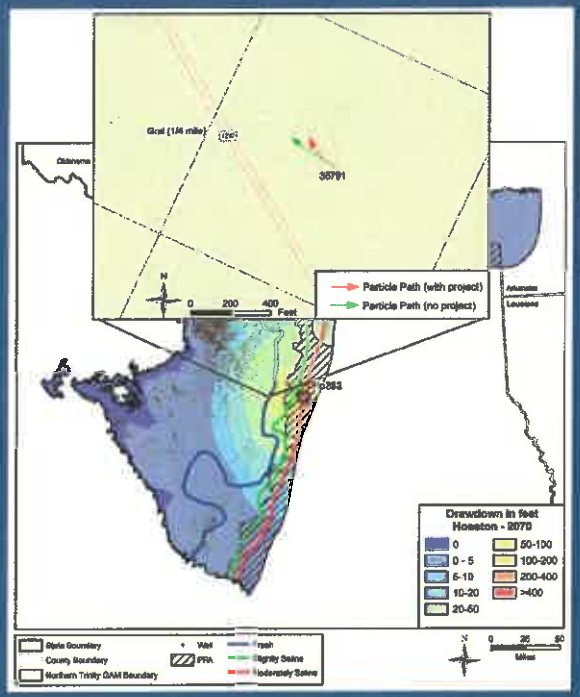


Estimated drawdown in the Hosston Formation in the North Trinity Aquifer after 50 years of production in Hosston PPA 4, Wellfield 2.

NTA: Drawdowns



Head contours in the Hosston Formation at the end of the basecase simulation.



Example of particle tracks after 50 years for simulation of pumping Hosston PPA #3 Wellfield #2.

What's next?

- The delineation of potential production areas presented today are draft and open to public comment
- This presentation will be publicly available at the TWDB BRACS website; Stakeholders will receive an email when it is posted
- Stakeholders should send their comments to the TWDB
- The Final Report will be posted to the TWDB website
- Brackish Groundwater Production Zones will be designated by the TWDB at a public board meeting in Spring 2018
- Stakeholders will receive an email with the meeting date, time, and location

Questions, Comments, and Input from Stakeholders

- Contact Info:
  Mark Robinson
  512-463-7657
  mark.robinson@twdb.texas.gov

http://www.twdb.texas.gov/innovativewater/bracs/projects/HB30_Trinity/index.asp

PPA drawdown details

- Backup slides

Simulation of drawdown in the North Trinity Aquifer after 30 years of production

					Total Pumping Rate (afy)			Max. Drawdown at Existing Well (ft)			Max Drawdown at Fresh Water Line (ft)			Max Drawdown in Unit (ft)		
Formation	PPA#	Well Field	Label	Depth to Unit Top (ft)	low	med.	high	low	med.	high	low	med.	high	low	med.	high
Paluxy	1	1	Pa141	1,279	205	411	822	15	29	59	4	8	15	95	191	382
Paluxy	2	1	Pa241	3,873	77	155	309	9	18	36	10	19	38	73	147	294
Glen Rose	1	1	GR151	2,808	164	328	657	4	8	16	0	1	1	102	205	409
Glen Rose	2	1	GR251	4,527	65	129	258	6	12	23	7	13	27	65	130	259
Glen Rose	3	1	GR351	2,754	121	242	483	11	22	43	1	3	5	76	152	305
Glen Rose	4	1	GR451	3,024	145	290	581	7	14	29	3	7	14	75	151	301
Hensell	1	1	He161	3,387	92	184	368	4	8	16	0	0	0	100	201	401
Hensell	2	1	He261	2,180	83	166	332	16	31	62	1	2	4	84	168	335
Hensell	3	1	He361	4,497	18	36	73	2	4	7	1	2	4	42	84	168
Hensell	3	2	He362	4,165	10	19	39	3	6	13	0	0	1	77	154	308
Pearsall	1	1	Pe171	4,010	445	890	1,780	5	10	19	0	1	1	101	203	406
Pearsall	2	1	Pe271	3,634	376	752	1,504	7	13	27	9	17	34	63	126	252
Hosston	1	1	Ho181	3,913	317	633	1,267	16	32	63	1	1	2	102	203	407
Hosston	2	1	Ho281	5,099	553	1,105	2,211	19	37	74	4	8	17	85	171	341
Hosston	2	2	Ho282	4,408	465	931	1,861	9	19	37	11	21	42	53	106	213
Hosston	3	1	Ho381	4,752	479	957	1,915	21	42	83	13	26	51	71	141	282
Hosston	3	2	Ho382	4,506	699	1,398	2,796	17	34	67	13	25	51	73	146	292
Hosston	4	1	Ho481	3,098	163	327	653	18	36	72	17	34	69	46	93	186
Hosston	4	2	Ho482	3,615	154	308	616	23	46	91	10	21	42	68	135	270

Estimated drawdown for a 1,000 afy wellfield after 50 years of production – Northern Trinity Aquifer

Formation	PPA#	Well Field	Label	Depth to Unit Top (ft)	Total Pumping Rate (afy)	Max. Drawdown at Existing Well (ft)	Max Drawdown at Fresh Water Line (ft)	Max Drawdown in Unit (ft)
Paluxy	1	1	Pa141	1,279	1,000	73	20	466
Paluxy	2	1	Pa241	3,873	1,000	123	128	954
Glen Rose	1	1	GR151	2,808	1,000	26	3	625
Glen Rose	2	1	GR251	4,527	1,000	94	107	1,007
Glen Rose	3	1	GR351	2,754	1,000	91	12	633
Glen Rose	4	1	GR451	3,024	1,000	52	25	523
Hensell	1	1	He161	3,387	1,000	44	1	1,093
Hensell	2	1	He261	2,180	1,000	188	14	1,010
Hensell	3	1	He361	4,497	1,000	102	57	2,315
Hensell	3	2	He362	4,165	1,000	341	25	7,993*
Pearsall	1	1	Pe171	4,010	1,000	12	1	229
Pearsall	2	1	Pe271	3,634	1,000	19	24	169
Hosston	1	1	Ho181	3,913	1,000	53	3	325
Hosston	2	1	Ho281	5,099	1,000	35	9	156
Hosston	2	2	Ho282	4,408	1,000	22	25	117
Hosston	3	1	Ho381	4,752	1,000	48	31	152
Hosston	3	2	Ho382	4,506	1,000	26	20	107
Hosston	4	1	Ho481	3,098	1,000	118	114	293
Hosston	4	2	Ho482	3,615	1,000	174	84	463

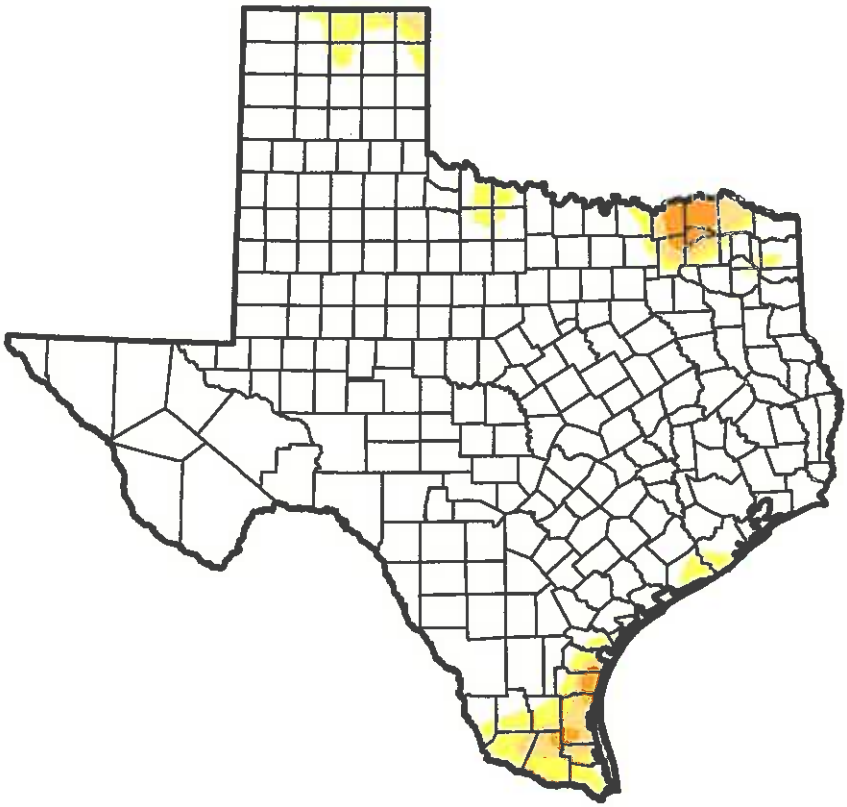
Minimum and maximum change in simulated travel distances at 50 years – Northern Trinity Aquifer

				Maximum Difference in Distance				Minimum Difference in Distance			
Formation	PPA#	Well Field	Label	Particle ID	Base Distance (ft)	Project Distance (ft)	Difference (ft)	Particle ID	Base Distance (ft)	Project Distance (ft)	Difference (ft)
Paluxy	1	1	Pa141	6733	56	78	22	7060	52	41	-11
Paluxy	2	1	Pa241	6109	59	101	42	5944	35	4	-31
Glen Rose	1	1	GR151	13598	43	44	1	13640	44	42	-2
Glen Rose	2	1	GR251	13925	10	17	7	10753	102	99	-3
Glen Rose	3	1	GR351	8514	355	361	5	13755	3,117	3,111	-5
Glen Rose	4	1	GR451	16171	127	140	13	13755	3,117	2,541	-576
Hensell	1	1	He161	17106	1,814	1,815	1	19546	1,225	1,224	-1
Hensell	2	1	He261	17106	1,814	1,820	6	19950	1,373	1,363	-10
Hensell	3	1	He361	17594	1,079	1,089	10	17172	1,514	1,495	-19
Hensell	3	2	He362	20376	1,779	1,787	8	19827	567	562	-5
Pearsall	1	1	Pe171	32457	1,627	1,631	4	34056	1,413	1,409	-4
Pearsall	2	1	Pe271	32394	1,587	1,617	30	33721	575	553	-23
Hosston	1	1	Ho181	32796	1,636	1,716	80	33096	5,978	5,904	-74
Hosston	2	1	Ho281	36045	368	429	61	34935	814	725	-89
Hosston	2	2	Ho282	36046	143	226	82	35770	201	104	-97
Hosston	3	1	Ho381	35671	3,057	3,137	80	37614	1,441	1,297	-144
Hosston	3	2	Ho382	36712	2,316	2,494	177	36748	1,970	1,816	-153
Hosston	4	1	Ho481	23677	889	892	2	27515	280	278	-2
Hosston	4	2	Ho482	27457	280	307	27	26908	380	347	-33

ATTACHMENT G

Monthly Drought Monitor Maps for Texas

U.S. Drought Monitor
Texas



January 24, 2017
(Released Thursday, Jan. 26, 2017)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.24	7.76	3.19	1.08	0.01	0.00
Last Week *1/17/2017*	82.78	17.22	4.01	0.94	0.15	0.00
3 Months Ago *10/25/2016*	64.92	35.08	10.84	1.10	0.00	0.00
Start of Calendar Year *1/3/2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *9/27/2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *1/26/2016*	98.05	1.95	0.00	0.00	0.00	0.00

Intensity:

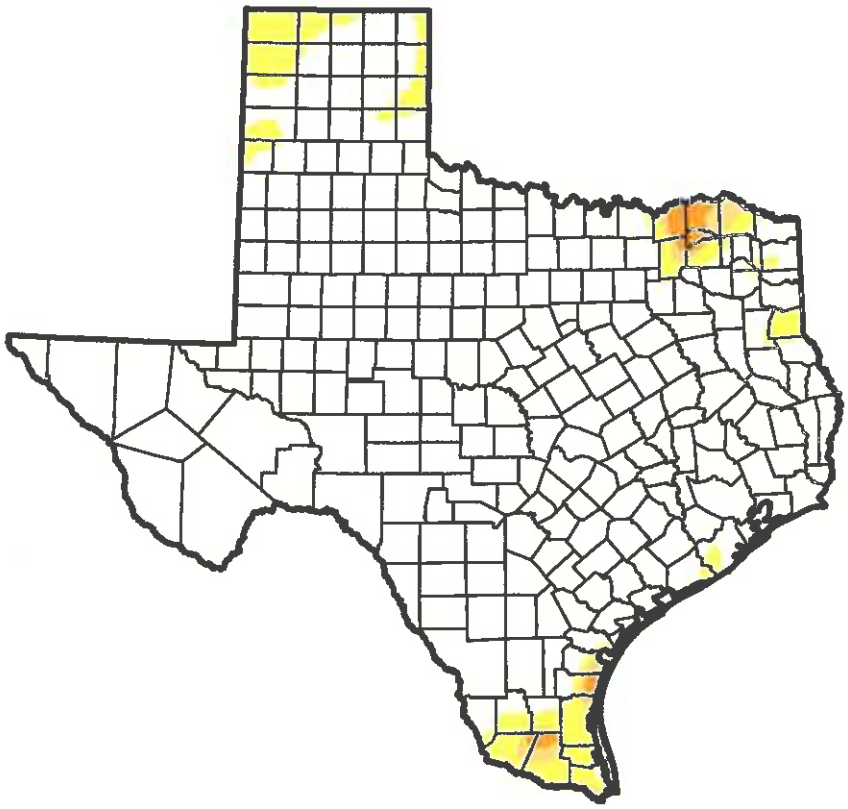
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



February 21, 2017
(Released Thursday, Feb. 23, 2017)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	91.57	8.43	2.07	0.62	0.00	0.00
Last Week 2/14/2017	88.14	11.86	3.69	1.26	0.53	0.00
3 Months Ago 11/22/2016	66.53	33.47	14.73	7.91	1.09	0.00
Start of Calendar Year 1/3/2017	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year 9/27/2016	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago 2/23/2016	77.61	22.39	0.79	0.00	0.00	0.00

Intensity:

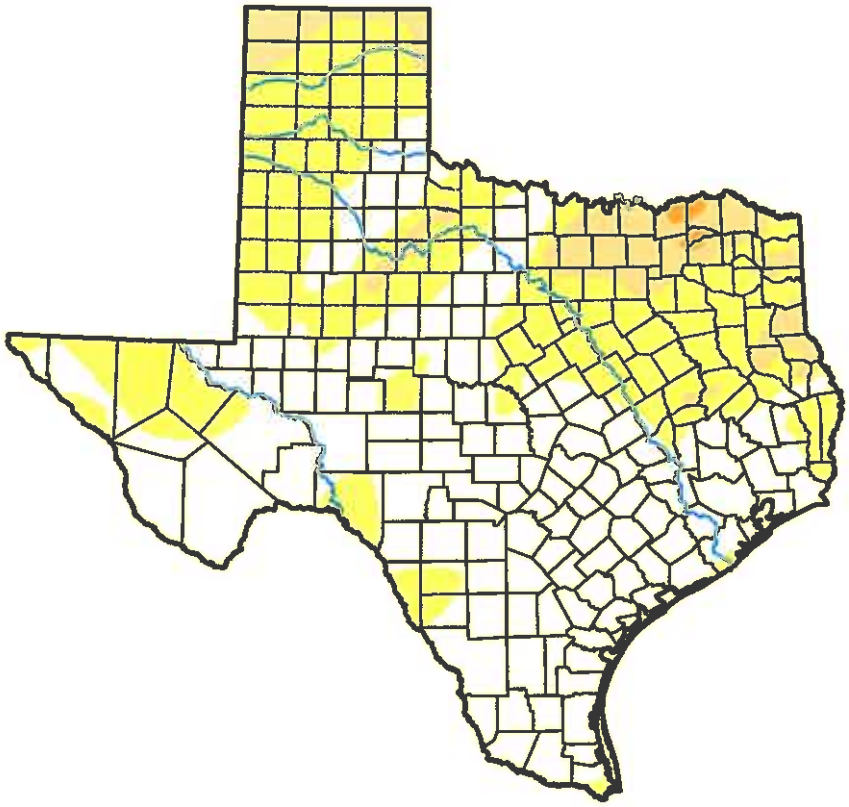
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Heim
NCEI/NOAA

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



March 28, 2017
(Released Thursday, Mar. 30, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	55.06	44.94	8.67	0.40	0.00	0.00
Last Week *03-21-2017*	53.46	46.54	8.63	0.93	0.00	0.00
3 Months Ago *12-27-2016*	75.85	24.15	6.97	1.77	0.04	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-27-2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *03-29-2016*	75.16	24.84	2.96	0.00	0.00	0.00

Intensity:

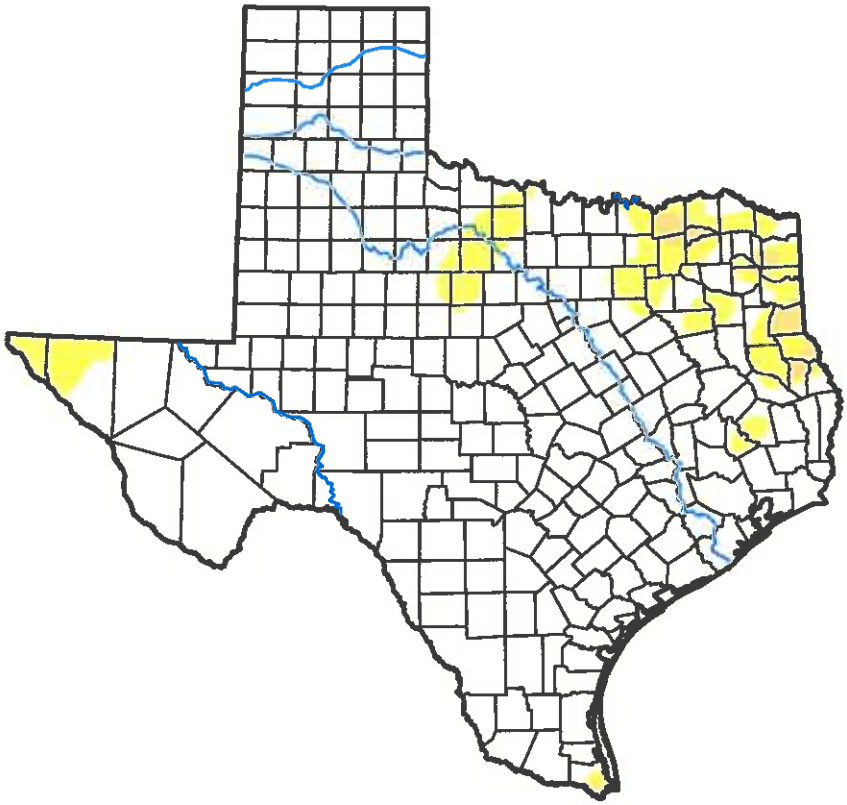
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Eric Luebehusen
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



April 25, 2017
(Released Thursday, Apr. 27, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	90.58	9.42	1.34	0.00	0.00	0.00
Last Week *04-18-2017*	90.30	9.70	1.54	0.00	0.00	0.00
3 Months Ago *01-24-2017*	92.24	7.76	3.19	1.08	0.01	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-27-2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *04-26-2016*	86.91	13.09	2.28	0.27	0.00	0.00

Intensity:

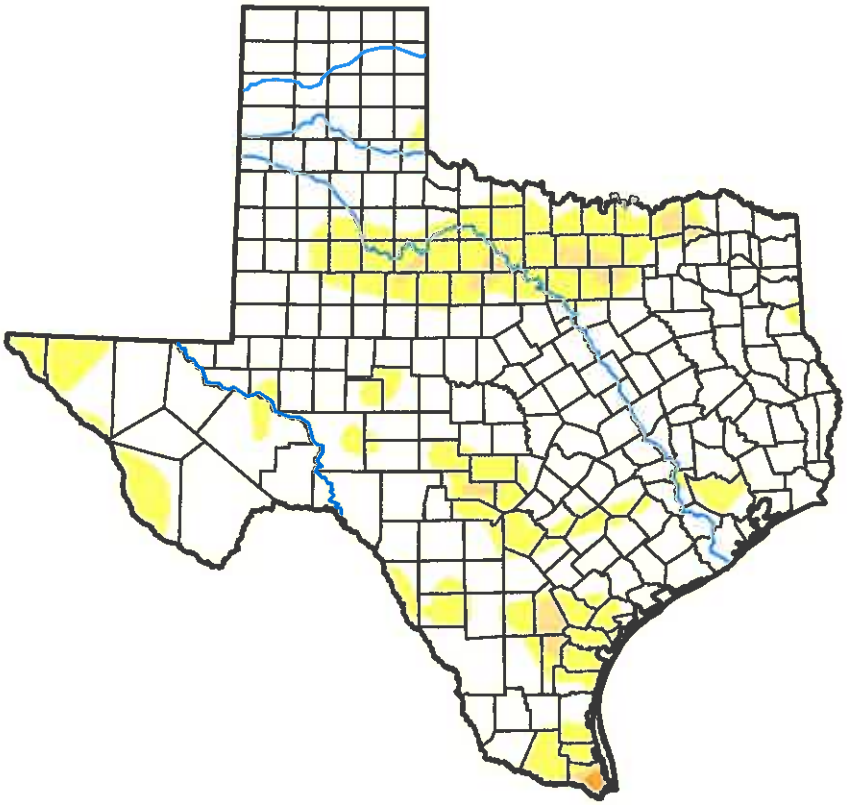
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Eric Luebehusen
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



May 23, 2017
(Released Thursday, May. 25, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	77.70	22.30	2.41	0.19	0.00	0.00
Last Week *05-16-2017*	65.58	34.42	6.15	1.20	0.00	0.00
3 Months Ago *02-21-2017*	91.57	8.43	2.07	0.82	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-27-2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *05-24-2016*	97.30	2.70	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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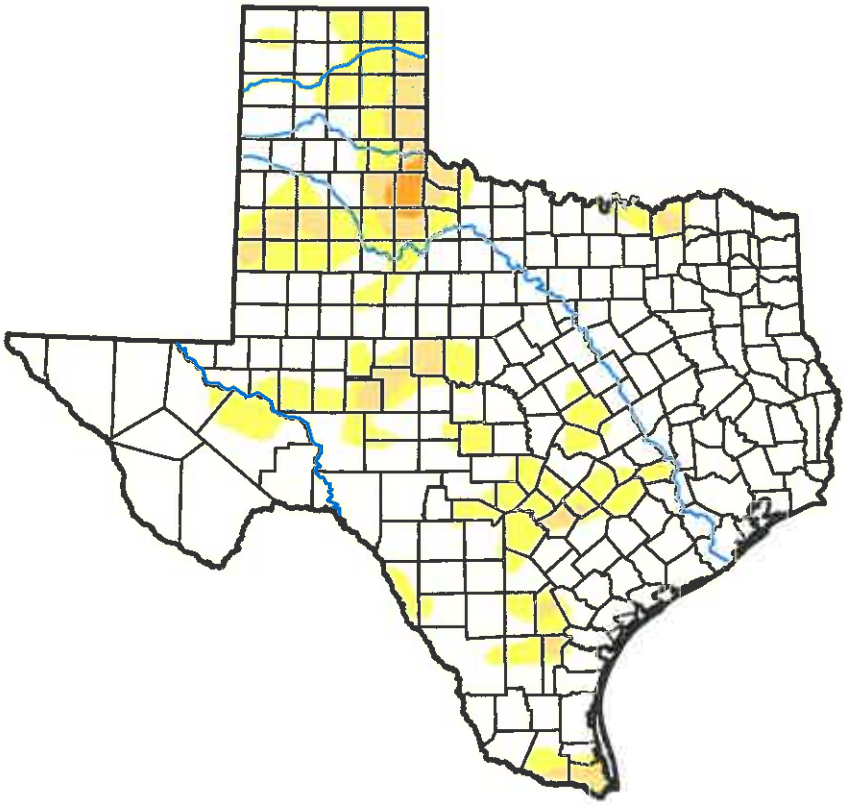
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



June 27, 2017
(Released Thursday, Jun. 29, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	76.48	23.52	5.98	0.81	0.00	0.00
Last Week *06-20-2017*	72.65	27.35	4.84	0.00	0.00	0.00
3 Months Ago *03-28-2017*	55.06	44.94	8.67	0.40	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-27-2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *06-28-2016*	98.62	1.38	0.00	0.00	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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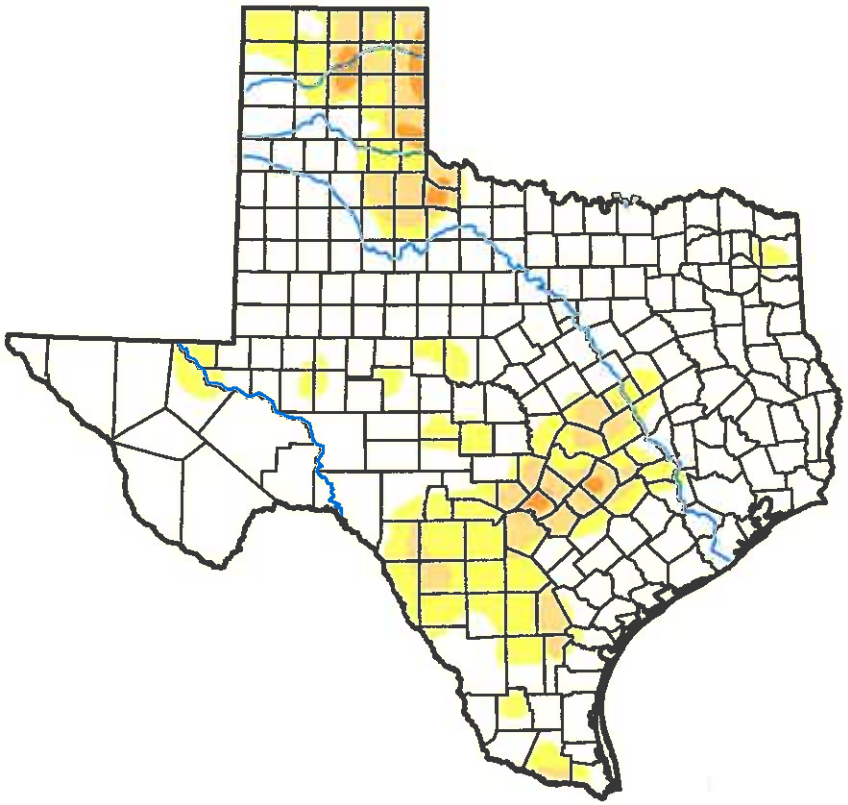
NCEI/NOAA

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



July 25, 2017
(Released Thursday, Jul. 27, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	75.04	24.96	8.99	1.26	0.00	0.00
Last Week *07-18-2017*	74.42	25.58	7.85	0.46	0.00	0.00
3 Months Ago *04-25-2017*	90.58	9.42	1.34	0.00	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-27-2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *07-26-2016*	63.03	36.97	5.89	0.18	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Heim
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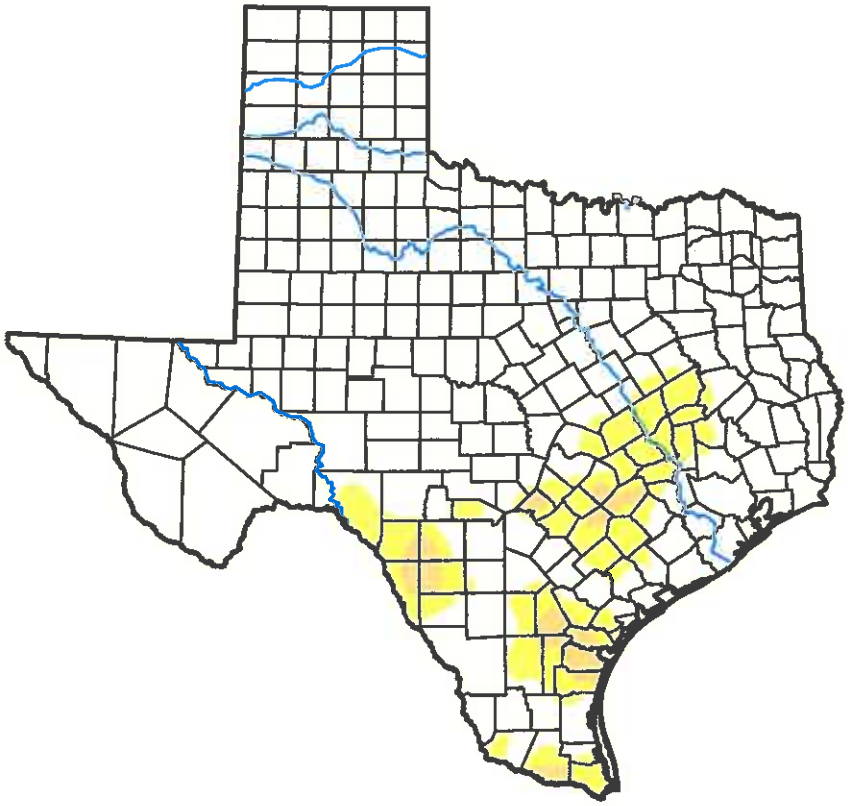
http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



August 22, 2017
(Released Thursday, Aug. 24, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	86.44	13.56	2.47	0.00	0.00	0.00
Last Week *08-15-2017*	89.71	10.29	1.23	0.00	0.00	0.00
3 Months Ago *05-23-2017*	77.70	22.30	2.41	0.19	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-27-2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *08-23-2016*	85.07	14.93	3.91	0.74	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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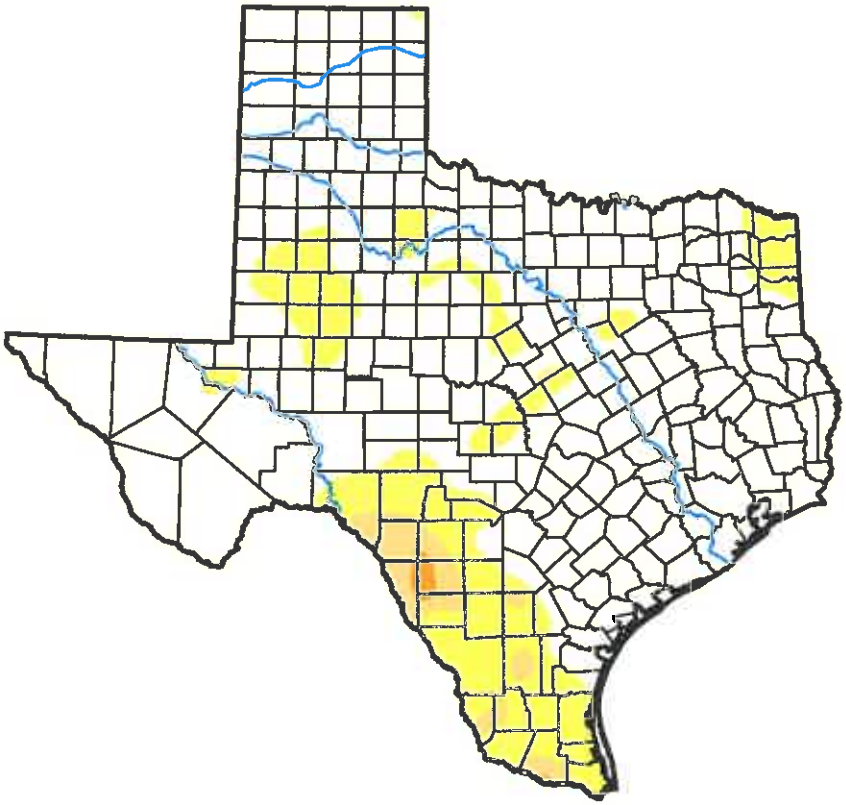
U.S. Drought Monitor
Texas



September 19, 2017
(Released Thursday, Sep. 21, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	79.27	20.73	3.27	0.35	0.00	0.00
Last Week *09-12-2017*	92.45	7.55	1.52	0.04	0.00	0.00
3 Months Ago *06-20-2017*	72.65	27.35	4.84	0.00	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-27-2016*	94.83	5.17	0.62	0.00	0.00	0.00
One Year Ago *09-20-2016*	95.44	4.56	0.94	0.12	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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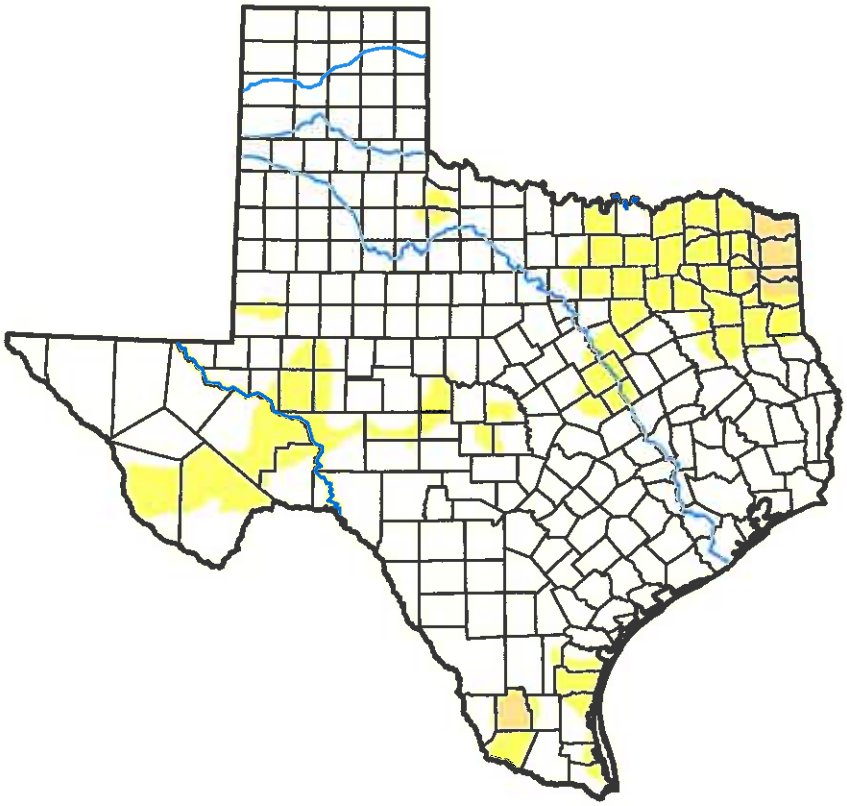
http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



October 24, 2017
(Released Thursday, Oct. 26, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	80.89	19.11	1.74	0.00	0.00	0.00
Last Week *10-17-2017*	80.83	19.17	4.32	0.00	0.00	0.00
3 Months Ago *07-25-2017*	75.04	24.96	8.99	1.26	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-26-2017*	70.54	29.46	4.17	0.04	0.00	0.00
One Year Ago *10-25-2016*	64.92	35.08	10.84	1.10	0.00	0.00

Intensity:

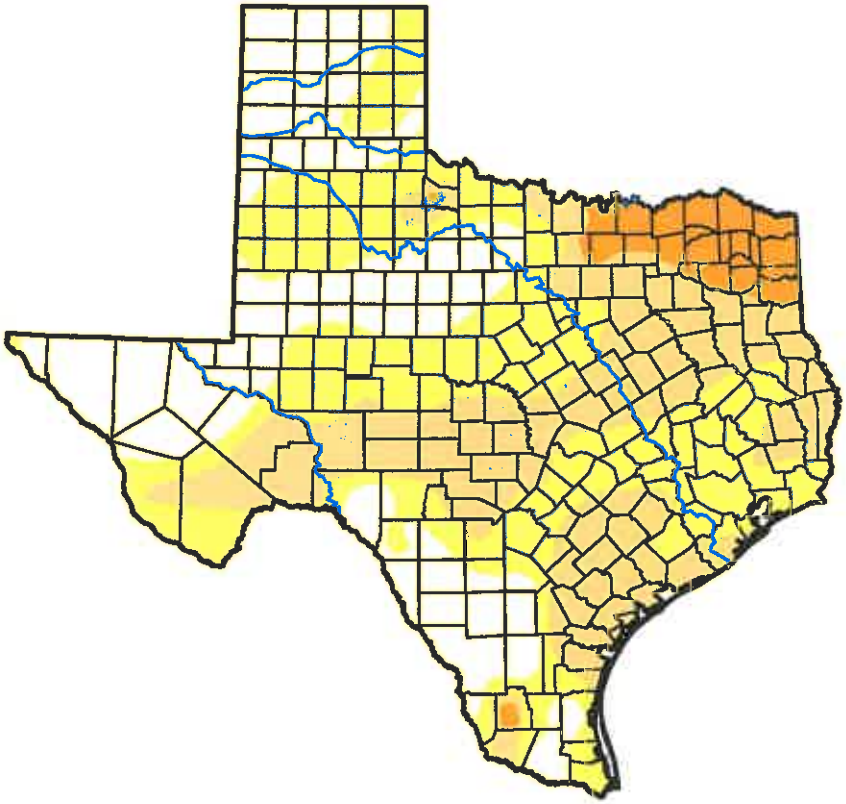
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Eric Luebehusen
U.S. Department of Agriculture

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



November 28, 2017
(Released Thursday, Nov. 30, 2017)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	28.73	71.27	35.11	5.50	0.00	0.00
Last Week *11-21-2017*	40.02	59.98	20.23	3.25	0.00	0.00
3 Months Ago *08-29-2017*	96.14	3.86	0.87	0.00	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-26-2017*	70.54	29.46	4.17	0.04	0.00	0.00
One Year Ago *11-29-2016*	66.37	33.63	14.18	3.27	0.08	0.00

Intensity:

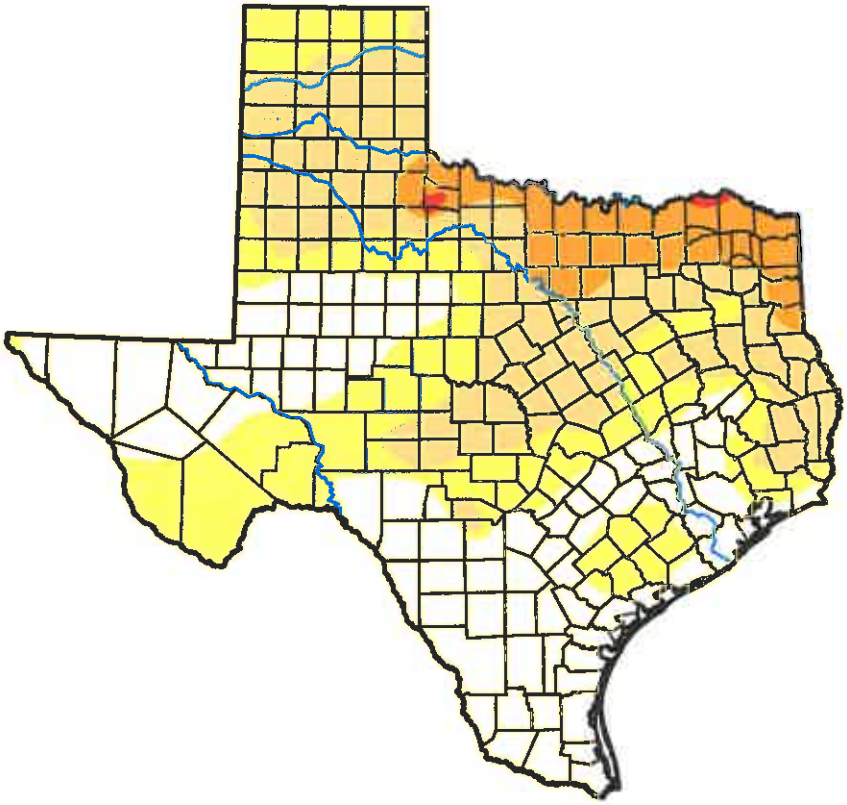
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
David Simeral
Western Regional Climate Center

http://droughtmonitor.unl.edu/

U.S. Drought Monitor
Texas



December 19, 2017
(Released Thursday, Dec. 21, 2017)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	36.13	63.87	37.03	8.84	0.25	0.00
Last Week *12-12-2017*	28.56	71.44	26.17	11.74	0.76	0.00
3 Months Ago *09-19-2017*	79.27	20.73	3.27	0.35	0.00	0.00
Start of Calendar Year *01-03-2017*	81.50	18.50	6.29	1.97	0.04	0.00
Start of Water Year *09-26-2017*	70.54	29.46	4.17	0.04	0.00	0.00
One Year Ago *12-20-2016*	79.50	20.50	7.52	1.94	0.04	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Jessica Blunden
NCEI/NOAA

http://droughtmonitor.unl.edu/

ATTACHMENT H

Water Loss Information

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Entity	PWS ID	Year of Audit	Population Size	Retail Connections Served	Service Connection Density (#/mile)	Average Yearly Operating Pressure (pounds per square inch)	Customer Meter Accuracy %	Data Handling Discrepancy Loss (gallons per connection per day)	Unauthorized Consumption (gallons per connection per day)	Apparent Loss per Connection (gallons per connection per day)	Real Loss per Connection (gallons per connection per day)	Real Loss per Mile (gallons per mile per day)	OK?
2	**Collin County**													
3	Altoga WSC	TX043002	2015	909	307	14	60	97.0	3.9	13.6	24	n/a	263	N
4	City of Anna	TX043002	2015	11,500	4,531	70	65	97.0	0.0	0.7	7	48	n/a	N
5	City of Blue Ridge	TX0430002	2016	1413	471	61.1	58	98	0.0	0.5	4	11	n/a	Y
6	City of Celina	TX0430003	2016	11196	4045	36.1	65	99	0.0	0.9	4	60	n/a	N
7	City of Farmersville	TX0430004	2016	3530	1413	29.6	68	99	0.8	0.6	3	n/a	302	Y
8	City of Frisco	TX0430005	2016	159920	52615	55.1	75	98	1.2	0.0	11	16	n/a	Y
9	City of Josephine	TX043003	2015	1,400	708	26	62	99.0	0.6	0.5	3	n/a	537	Y
10	City of Lucas	TX043005	2010	5,564	1,890	34	60	99.0	1.4	1.7	9	108	n/a	N
11	City of McKinney	TX0430039	2016	168358	54107	60.6	82	98	0.0	1.4	9	109	n/a	N
12	City of Melissa	TX043004	2015	7,821	2,607	45	65	98.0	0.0	1.0	7	54	n/a	N
13	City of Murphy	TX0430042	2016	20230	6198	65.1	60	99	0.0	1.5	6	141	n/a	N
14	City of Plano	TX0430007	2016	277400	84081	59.5	67.2	99	0.0	1.8	7	110	n/a	N
15	City of Princeton	TX043000	2016	12,324	3,966	69	74.9	99.0	0.5	0.5	3	4	n/a	Y
16	City of Wylie	TX0430011	2016	42546	12748	81.5	65	98	0.0	0.9	7	26	n/a	Y
17	Copeville SUD	TX0430029	2016	4592	1617	20.0	65	97.5	1.7	0.4	6	n/a	200	Y
18	Country Ridge Water	TX043007	2013	536	208	43	65	96.0	0.0	1.5	25	12	n/a	Y
19	Culleoka WSC	TX043003	2015	6,390	2,131	22	70	100.0	0.0	0.6	1	n/a	534	Y
20	Desert WSC	TX0430032	2016	1616	565	8.1	60	98	0.0	2.8	6	n/a	684	Y
21	East Fork SUD	TX043003	2010	9,096	3,032	43	48	98.0	0.0	0.8	7	21	n/a	Y
22	Milligan WSC	TX043004	2010	3,285	1,095	30	65	98.0	0.0	0.7	6	n/a	97	Y
23	Nevada WSC	TX043005	2015	2,703	901	18	85	98.0	0.1	0.7	6	n/a	8	Y
24	North Farmersville WSC	TX043004	2015	700	236	16	65	95.0	0.0	0.7	13	n/a	353	N
25	Seis Lagos Utility District	TX0430057	2016	1599	533	82.0	50	98	0.0	1.5	12	63	n/a	N
26	Town of Fairview	TX0430034	2016	8500	4423	58.7	90	98	0.0	1.1	9	50	n/a	Y
27	Town of Prosper	TX0430009	2016	17990	6671	51.3	100	99.9	0.0	1.4	2	41	n/a	Y
28	Verona SUD	TX043004	2015	2,601	988	13	72	97.0	0.0	0.6	7	n/a	27	Y
29	Weston WSC	TX043005	2010	693	231	15	60	96.0	0.0	0.8	10	n/a	1,179	Y
30	Wylie Northeast SUD	TX043005	2015	5,074	1,534	56	68	93.0	0.0	0.8	23	11	n/a	N
31														
32	Cooke County													
33	City of Callisburg	TX049001	2015	1,887	629	6	65	100.0	0.0	0.4	0	n/a	103	Y
34	City of Gainesville	TX049000	2015	16,200	8,441	45	63	99.9	0.1	0.6	1	38	n/a	Y
35	City of Lindsay	TX049000	2015	1,018	444	37	64	98.0	0.0	0.0	5	10	n/a	Y
36	City of Muenster	TX049000	2010	1,556	773	45	79	97.0	0.0	0.7	9	5	n/a	Y
37	City of Valley View	TX049004	2015	858	314	11	65	95.0	0.0	0.5	9	n/a	189	Y
38	Era WSC	TX049001	2010	420	140	28	60	95.0	0.0	0.6	11	n/a	716	Y
39	LAKE KIOWA SUD	TX0490016	2016	2286	1270	54.0	62	99.8	0.0	1.1	2	3	n/a	Y
40	Mountain Springs WSC	TX049002	2015	3,000	1,026	7	90	97.0	0.0	0.8	10	n/a	26	Y
41	Pioneer Valley Water Co	TX049002	2015	350	285	41	26	100.0	0.0	0.3	0	23	n/a	Y
42	Woodbine WSC	TX049001	2015	7,400	2,148	13	85	92.0	0.0	0.6	19	n/a	123	N
43														

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Entity	PWS ID	Year of Audit	Population Size	Retail Connections Served	Service Connection Density (#/mile)	Average Yearly Operating Pressure (pounds per square inch)	Customer Meter Accuracy %	Data Handling Discrepancy Loss (gallons per connection per day)	Unauthorized Consumption (gallons per connection per day)	Apparent Loss per Connection (gallons per connection per day)	Real Loss per Connection (gallons per connection per day)	Real Loss per Mile (gallons per mile per day)	OK?
44	Denton County													
45	Argyle WSC	TX061001	2015	6,831	2,277	23	80	99.0	0.0	1.3	6	n/a	624	Y
46	Black Rock WSC	TX061004	2013	1,300	487	7	53	100.0	0.0	0.8	1	n/a	165	Y
47	Bolivar WSC	TX0610049	2016	10992	3331	7.8	53	98	0.5	0.6	5	n/a	111	Y
48	City of Aubrey	TX061000	2015	2,900	1,156	68	45	99.0	0.0	0.6	3	18	n/a	Y
49	City of Corinth	TX0610065	2016	20749	7787	68.5	80	98	0.0	0.9	7	26	n/a	Y
50	City of Denton	TX0610002	2016	125980	34089	55.2	70	99.1	0.0	1.3	5	49	n/a	Y
51	City of Hackberry	TX061009	2015	4,488	1,607	87	63	99.0	0.8	0.8	4	36	n/a	Y
52	City of Highland Village	TX0610080	2016	17000	5493	53.9	70	100	0.0	1.2	1	29	n/a	Y
53	City of Justin	TX0610003	2016	3700	1437	35.9	60	98	0.0	0.6	5	5	n/a	Y
54	City of Krum	TX061000	2015	4,700	1,801	38	65	95.0	0.0	0.6	12	6	n/a	Y
55	City of Lewisville	TX0610004	2016	104039	46451	121.6	55	99	0.5	0.7	4	23	n/a	Y
56	City of Pilot Point	TX061000	2015	5,047	1,819	7	55	98.7	0.0	0.7	3	n/a	212	Y
57	City of The Colony	TX0610081	2016	44228	12848	59.5	62	98.5	0.0	1.0	6	30	n/a	Y
58	Cross Timbers WSC	TX0610020	2015	6,900	2,259	26	80	95.0	0.0	1.2	24	n/a	484	Y
59	Denton County FWSD 1-A Castle	TX0610264	2016	13184	3941	67.6	79.3	98.5	3.5	1.4	13	17	n/a	Y
60	Denton County FWSD 7 Lantana	TX061022	2013	9,204	2,832	69	90	98.0	0.0	1.3	11	4	n/a	Y
61	Denton County FWSD 8-C	TX061025	2015	3,348	1,339	158	67	100.0	0.0	0.7	1	3	n/a	Y
62	Denton Creek Estates	TX061001	2015	414	138	59	50	100.0	0.0	0.3	0	2	n/a	Y
63	Denton Estates Mobile Home Pa	TX061001	2013	123	45	36	45	100.0	0.0	0.6	1	21	n/a	Y
64	Double Rock Estates	TX061017	2015	102	34	19	45	98.3	0.0	0.3	2	n/a	127	Y
65	Forest Hill Two WSC	TX061011	2015	114	36	53	58	100.0	0.0	1.0	1	2	n/a	Y
66	Harbor Grove WSC	TX061004	2010	420	140	35	35	98.0	0.0	0.5	4	12	n/a	Y
67	Hilltop Estates WSC	TX061019	2015	77	22	42	50	98.0	0.0	0.3	3	2	n/a	Y
68	Knob Hill Water System	TX061006	2010	180	74	19	40	98.0	0.0	0.6	5	n/a	107	Y
69	Longhorn Meadows Addition	TX061021	2015	837	279	40	62	100.0	0.0	0.8	1	19	n/a	Y
70	Meadow Ranch Water System	TX061022	2015	36	12	24	40	100.0	0.0	0.5	1	n/a	262	Y
71	Midway Water Utility	TX061002	2015	1,326	442	210	50	100.0	0.0	0.4	0	10	n/a	Y
72	Mustang SUD	TX0610036	2016	18636	6212	25.3	65	98	0.9	1.6	8	n/a	58	Y
73	Oak Bend Homeowners Water S	TX061016	2015	87	29	15	65	95.0	0.0	0.9	19	n/a	27	Y
74	Pilot Point Rural Water Supply	TX061018	2010	28	28	28	46	100.0	0.0	0.6	1	n/a	32	Y
75	Ponderosa Addition Utilities	TX061017	2015	153	51	37	50	100.0	0.0	0.4	0	9	n/a	Y
76	Rocky Point Water System	TX061007	2015	90	30	11	65	95.0	0.0	0.3	6	n/a	7	Y
77	Stonebridge WSC	TX061008	2010	45	15	15	42	100.0	0.0	0.4	0	n/a	5	Y
78	Stonecrest Estates	TX061005	2015	474	158	55	50	100.0	0.0	0.4	0	22	n/a	Y
79	Terraced Acres WSC	TX061009	2015	96	29	21	60	99.5	0.0	0.6	2	n/a	221	Y
80	Town of Flower Mound	TX0610023	2016	68050	23349	52.7	75	98	0.0	1.4	12	32	n/a	Y
81	Town of Lakewood Village	TX061003	2015	650	220	24	56	98.6	0.0	0.7	4	n/a	278	Y
82	TOWN OF LITTLE ELM	TX0610035	2016	35289	12260	87.6	65	98.9	0.0	0.7	3	32	n/a	Y
83	Town of Little Elm East	TX061003	2014	32,043	10,681	86	65	98.6	0.0	0.7	4	31	n/a	Y
84	Town of Little Elm West	TX061016	2013	720	240	28	57	98.5	0.0	0.8	5	n/a	535	Y
85	Town of Northlake	TX061023	2015	2,160	850	26	70	95.0	0.0	1.6	27	n/a	2,539	N
86	Town of Ponder	TX061003	2010	2,400	800	20	55	95.0	0.3	0.8	15	n/a	23	Y

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Entity	PWS ID	Year of Audit	Population Size	Retail Connections Served	Service Connection Density (#/mile)	Average Yearly Operating Pressure (pounds per square inch)	Customer Meter Accuracy %	Data Handling Discrepancy Loss (gallons per connection per day)	Unauthorized Consumption (gallons per connection per day)	Apparent Loss per Connection (gallons per connection per day)	Real Loss per Connection (gallons per connection per day)	Real Loss per Mile (gallons per mile per day)	OK?
87	Trophy Club MUD 1	TX0610018	2016	8840	3188	46.9	76	97	0.0	1.4	18	17	n/a	Y
88	Vacation Village	TX061005	2015	895	320	95	50	98.0	0.0	0.5	4	12	n/a	Y
89	Wynnwood Haven Estates	TX061003	2015	465	155	50	50	100.0	0.0	0.6	1	5	n/a	Y

ATTACHMENT I

Annual Financial Report

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

ANNUAL FINANCIAL REPORT

DECEMBER 31, 2016

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT
FOR THE YEAR ENDED DECEMBER 31, 2016
TABLE OF CONTENTS

Members:
AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS
TEXAS SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS

HANKINS, EASTUP, DEATON, TONN & SEAY
A PROFESSIONAL CORPORATION
CERTIFIED PUBLIC ACCOUNTANTS

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FAX (940) 383-4746

INDEPENDENT AUDITORS' REPORT

Members of the Board of Directors
North Texas Groundwater Conservation District
5100 Airport Drive
Denison, TX 75020

We have audited the accompanying financial statements of the governmental activities and each major fund of North Texas Groundwater Conservation District (the "District"), as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the District's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America. This includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standard* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and each major fund of North Texas Groundwater Conservation District as of December 31, 2016, and the respective changes in financial position and the respective budgetary comparison for the General Fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the *management's discussion and analysis* on pages 4 through 8 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise North Texas Groundwater Conservation District's basic financial statements. The other supplementary information listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. The other supplementary information is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplementary information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated June 2, 2017 on our consideration of North Texas Groundwater Conservation District's internal control over financial reporting and on our test of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering North Texas Groundwater Conservation District's internal control over financial reporting and compliance.

Hankins, Eastup, Deaton, Tonn & Seay

Hankins, Eastup, Deaton, Tonn & Seay, PC
Denton, Texas

June 2, 2017

MANAGEMENT'S DISCUSSION & ANALYSIS

As management of North Texas Groundwater Conservation District, we offer readers of the District's financial statement this narrative overview and analysis of the financial activities of the District for the year ended December 31, 2016. Please read this narrative in conjunction with the independent auditors' report on page 1, and the District's Basic Financial Statements that begin on page 10.

FINANCIAL HIGHLIGHTS

- The assets of North Texas Groundwater Conservation District exceeded its liabilities at the close of the fiscal year by $1,289,077 (Total Net Position). Of this amount, $1,278,432 is unrestricted and may be used to meet the District's ongoing obligations and responsibilities to taxpayers and creditors.

- The District's net position increased by $289,441, from $999,636 in the prior year to $1,289,077 as of December 31, 2016.

- At December 31, 2016, the District had a $1,278,432 total fund balance in its General Fund, representing a $14,267 or 1.1% decrease from the $1,292,699 fund balance in the previous year. $448,866 of the fund balance is unassigned, constituting 102% of the $438,697 in non-debt service General Fund expenditures for the year.

OVERVIEW OF THE FINANCIAL STATEMENTS

The management discussion and analysis is intended to serve as an introduction to North Texas Groundwater Conservation District's basic financial statements. The District's basic financial statements are comprised of three components: 1) government-wide financial statements, 2) fund financial statements, and 3) notes to the financial statements. This report also contains other supplementary information in addition to the basic financial statements themselves.

Government-wide Financial Statements: The government-wide financial statements are designed to provide readers with a broad overview of the District's finances, in a manner similar to a private-sector business.

The Statement of Net Position presents information on all of North Texas Groundwater Conservation District's assets and liabilities, with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the District is improving or deteriorating. Evaluation of the overall economic health of the District would extend to other nonfinancial factors such as diversification of the taxpayer base or the condition of District infrastructure in addition to the financial information provided in this report.

The Statement of Activities presents information showing how the District's net position changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. An important purpose of the design of the statement of activities is to show the financial reliance of the District's distinct activities or functions on revenues provided by the District's taxpayers.

The purpose of the District is to help accomplish the objectives set forth in Article XVI, Section 59 of the Texas Constitution related to the conservation and development of water resources of the State of Texas. With many other governmental entities, the aforementioned government-wide financial statements normally identify and distinguish between either governmental activities supported by general revenues and fees or business-type activities which are typically self-supported by user fees and charges. Both government-wide financial statements consist of one government fund principally supported by groundwater usage fees. The District has no business-type activities.

The governmental-wide financial statements can be found on pages 10 and 11 of this report.

Fund Financial Statements: A fund is a grouping of related accounts used to maintain control over resources that have been segregated for specific activities or objectives. Depending upon their reporting needs and requirements, governmental entities utilize three types of funds, including governmental funds, proprietary funds, and fiduciary funds. The North Texas Groundwater Conservation District uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. Since the District has no legitimate need or requirement to have either proprietary or fiduciary funds, all of its funds are maintained and reported as governmental funds.

Governmental funds are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. However, unlike the government-wide financial statements, governmental fund financial statements focus on near-term inflows and outflows of spendable resources, as well as on balances of spendable resources available at the end of the fiscal year. Such information may be useful in evaluating a government's near-term financing requirements.

Because the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, the reader may better understand the long-term impact of the government's near-term financing decisions. Both the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balances provide a reconciliation to facilitate this comparison between governmental funds and governmental activities.

The District maintains a single governmental fund, its General Fund. The General Fund is used to account for the acquisition and use of the District's spendable financial resources and the related liabilities.

The government fund financial statements can be found on pages 12 and 14 of this report.

The District adopts an annual appropriated budget for its General Fund. A budgetary comparison statement has been provided for the General Fund to demonstrate compliance with this budget. It can be found in the "Basic Financial Statements" section of this report.

Notes to the Basic Financial Statements: The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements. The notes to the financial statements can be found on pages 17-24 of this report.

Other Information: In addition to the basic financial statements and accompanying notes, this report also presents certain other supplementary information. Supplementary information follows the notes to the financial statements.

GOVERNMENT-WIDE FINANCIAL ANALYSIS

Net Position: As noted earlier, net position may serve over time as a useful indicator of a government's financial position. As of December 31, 2016, the North Texas Groundwater Conservation District's assets exceeded liabilities by $1,289,077.

At December 31, 2016, $1,342,391 in total assets were recorded. Of that amount, current and other assets (cash, receivables, and prepaid expenses) represented 99.2% and capital assets (vehicle and equipment) constituted 0.8%.

Total liabilities at year end equaled $53,314, none of which consisted of long-term debt.

Of the $1,289,077 in total net position, 0.8% or $10,645 is in capital assets. The District uses these capital assets to carry out its responsibilities and to provide information and services to citizens and the taxpayers which support the District. Capital assets are non-liquid and cannot be used to satisfy District obligations. The unrestricted net position total of $1,278,432 may be used to meet the District's ongoing obligations and responsibilities.

Net Position

	Governmental Activities	
	2016	2015
Assets:		
Current assets	$1,331,746	$1,403,864
Capital assets (net of depreciation)	10,645	14,455
Total Assets	1,342,391	1,418,319
Liabilities:		
Current liabilities	53,314	418,683
Long-term liabilities	-	-
Total Liabilities	53,314	418,683
Net Position:		
Net investment in capital assets	10,645	14,455
Unrestricted	1,278,432	985,181
Total Net Position	$1,289,077	$ 999,636

Governmental Activities: The following table provides a summary of the District's operations for the years ended December 31, 2016 and 2015.

Changes in Net Position

	2016	2015
Program Revenues:		
Charges for Services	$ 722,388	$ 853,755
General Revenues:		
Interest Income	2,042	1,829
Total Revenues	724,430	855,584
Expenditures By Governmental Activity:		
Administration	442,507	435,045
Debt Service - interest	(7,518)	(2,929)
Total Expenditures	434,989	432,116
Change In Net Position	289,441	423,468
Net Position – Beginning	999,636	576,168
Net Position – Ending	$1,289,077	$ 999,636

FINANCIAL ANALYSIS OF GOVERNMENTAL FUNDS

Governmental Funds: The focus of North Texas Groundwater Conservation District's governmental funds is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the District's financing and budgeting requirements. In particular, the unassigned fund balance may serve as a useful measure of the District's net resources available for spending at the end of the fiscal year.

At December 31, 2016, the District has a $1,278,432 total fund balance. This is 1.1% lower than the $1,292,699 prior-year fund balance – primarily due to decreased revenue and higher debt service loan repayments in 2016. $825,000 of the fund balance is committed for various purposes identified by the Board and $448,866 of the fund balance is unassigned.

General Fund Budgetary Highlights: There were no amendments to the originally adopted budget during the year. Actual expenditures for the year ended December 31, 2016 were $738,697, that being $105,097 or 16.6% more than the $633,600 budgeted for the year. Actual expenditures were over budget primarily due to additional debt services expenditures in order to retire the District's remaining long-term debt.

Actual revenues for the year were $724,430 or 96.0% of the budgeted revenues for the year, primarily due to lower than expected groundwater usage fee revenue.

CAPITAL ASSET AND DEBT ADMINISTRATION

Capital Assets: The District's investment in capital assets for its governmental activities as of December 31, 2016 amounted to $10,645 (net of accumulated depreciation). This represents a $3,810 decrease from the previous fiscal year. There were no capital asset additions during the year. The following table portrays the District's mix of capital assets at December 31, 2016:

Vehicles	$ 3,957
Equipment	6,688
	$10,645

Debt Administration: At the end of the year, the District had no long-term debt.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

For fiscal year 2017 the District's latest adopted budget shows total anticipated expenditures of $585,400, a $153,297 decrease from total actual expenditures of $738,697 in fiscal year 2016. The majority of the decrease is attributable to no debt service payments required for 2017. Rates assessed groundwater users are not expected to increase for fiscal year 2017.

REQUEST FOR INFORMATION

This financial report is designed to provide a general overview of the District's finances, comply with finance-related laws and regulations, and demonstrate the District's commitment to public accountability. If you have any questions about this report or would like to request additional information, contact Drew Satterwhite, General Manager of the District, at 5100 Airport Drive, Denison, TX 75020, (855) 426-4433.

BASIC FINANCIAL STATEMENTS

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

STATEMENT OF NET POSITION
DECEMBER 31, 2016

	Governmental Activities
Assets	
Current Assets:	
Cash and Cash Equivalents	$ 1,152,637
Accounts Receivable	127,970
Other Receivables	46,573
Prepaid Expenses	4,566
Total Current Assets	1,331,746
Capital Assets:	
Vehicle and Equipment, net	10,645
Total Capital Assets	10,645
Total Assets	1,342,391
Liabilities	
Current Liabilities:	
Accounts Payable	25,783
Well Driller Deposits	27,531
Total Current Liabilities	53,314
Total Liabilities	53,314
Net Position	
Net Investment in Capital Assets	10,645
Unrestricted	
Unreserved	1,278,432
Total Net Position	$ 1,289,077

The accompanying notes are an integral part of this statement.

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED DECEMBER 31, 2016

Program Activities	Expenses	Program Revenues: Charges for Services	Program Revenues: Operating Grants and Contributions	Net (Expenses) Revenue and Changes in Net Position: Governmental Activities
Governmental activities				
Administration	$ 442,507	$ 722,388	$ -	$ 279,881
Debt Service - interest	(7,518)	-	-	7,518
				-
Total Government Activities	434,989	722,388	-	287,399
Total Primary Government	$ 434,989	$ 722,388	$ -	287,399
General Revenues:				
Interest income				2,042
Total General Revenues				2,042
Change in Net Position				289,441
Net Position – beginning of year				999,636
Net Position – end of year				$ 1,289,077

The accompanying notes are an integral part of this statement.

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

BALANCE SHEET
DECEMBER 31, 2016

	General Fund
Assets	
Current Assets:	
Cash and Cash Equivalents	$1,152,637
Accounts Receivable	127,970
Other Receivables	46,573
Prepaid Costs	4,566
Total Current Assets	1,331,746
Total Assets	$1,331,746
Liabilities	
Current Liabilities:	
Accounts Payable	$ 25,783
Well Driller Deposits	27,531
Total Current Liabilities	53,314
Total Liabilities	53,314
Fund Balance:	
Nonspendable Fund Balance:	
Prepaid Costs	4,566
Committed Fund Balance	825,000
Unassigned Fund Balance	448,866
Total Fund Balances	1,278,432
Total Liabilities and Fund Balance	$1,331,746

The accompanying notes are an integral part of this statement.

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

RECONCILIATION OF THE GOVERNMENTAL FUND
BALANCE SHEET TO STATEMENT OF NET POSITION
DECEMBER 31, 2016

Total fund balance – governmental fund	$1,278,432
Amounts reported for governmental activities in the statement of net position are different because:	
Capital assets (net of accumulated depreciation) used in governmental activities are not current financial resources and therefore are not reported in the governmental fund balance sheet.	10,645
Total net position - governmental activities	$1,289,077

The accompanying notes are an integral part of this statement.

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE
FOR THE YEAR ENDED DECEMBER 31, 2016

	General Fund
Revenues:	
Groundwater Usage Fees	$ 625,978
Well Registration Fees	20,400
Well Driller Deposit Forfeitures	2,200
GMA8 Fees	51,043
Interest Earned	2,042
Penalties and Late Charges	22,767
Total Revenues	724,430
Expenditures:	
Administrative - General Manager	45,028
Administrative - Secretarial & Clerical	59,232
Administrative - Project Coordinator	13,618
Field Technicians	108,794
Consultants	29,013
Accounting and Auditing	31,546
Legal	60,236
Software Maintenance	7,934
Direct Costs Reimbursed	3,874
Insurance	3,724
Vehicle Costs	5,685
Office Rent	2,400
Telephone	1,913
GMA8 Costs	57,850
Legal Notices	1,303
Dues and Subscriptions	1,608
Meetings and Conferences	3,220
Injection Well Monitoring	626
Small Equipment	1,093
Debt Service	300,000
Total Expenditures	738,697
Excess (deficit) of revenues over expenditures and net change in fund balance	(14,267)
Fund balance at beginning of year	1,292,699
Fund balance at end of year	$1,278,432

The accompanying notes are an integral part of this statement.

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE OF THE GOVERNMENTAL FUND TO THE STATEMENT OF ACTIVITIES
YEAR ENDED DECEMBER 31, 2016

Net change in fund balance – total governmental fund	$ (14,267)
Amounts reported for governmental activities in the statement of activities are different because:	
Depreciation expense on capital assets is reported in the statement of activities, but does not require the use of current financial resources. Therefore, depreciation expense is not reported as expenditures in the governmental funds.	(3,810)
Principal payments on long-term debt are expenditures in the governmental funds but are considered a reduction of long-term debt balances in the government-wide statements.	300,000
Current year change in interest payable does not require the use of current financial resources; therefore, is not reported as an expenditure in governmental funds.	7,518
Change in net position of governmental activities	$ 289,441

The accompanying notes are an integral part of this statement.

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

BUDGETARY COMPARISON SCHEDULE - GENERAL FUND
FOR THE YEAR ENDED DECEMBER 31, 2016

	Budget			Variance Positive/
	Original	Final	Actual	(Negative)
Revenues:				
Groundwater Usage Fees	$ 712,000	$ 712,000	$ 625,978	$ (86,022)
Well Registration Fees	5,000	5,000	20,400	15,400
Well Driller Deposit Forfeitures	-	-	2,200	2,200
GMA8 Fees	36,364	36,364	51,043	14,679
Interest Earned	1,000	1,000	2,042	1,042
Penalties and Late Charges	-	-	22,767	22,767
Total Revenues	754,364	754,364	724,430	(29,934)
Expenditures:				
Administrative - General Manager	45,000	45,000	45,028	(28)
Administrative - Secretarial & Clerical	60,000	60,000	59,232	768
Administrative - Project Coordinator	15,000	15,000	13,618	1,382
Field Technicians	95,000	95,000	108,794	(13,794)
Consultants	39,400	39,400	29,013	10,387
Accounting and Auditing	25,000	25,000	31,546	(6,546)
Legal	57,500	57,500	60,236	(2,736)
Software Maintenance	7,500	7,500	7,934	(434)
Direct Costs Reimbursed	4,000	4,000	3,874	126
Insurance	5,000	5,000	3,724	1,276
Vehicle Costs	3,000	3,000	5,685	(2,685)
Office Rent	2,400	2,400	2,400	-
Telephone	2,000	2,000	1,913	87
GMA8 Costs	40,000	40,000	57,850	(17,850)
Legal Notices	1,000	1,000	1,303	(303)
Dues and Subscriptions	1,600	1,600	1,608	(8)
Meetings and Conferences	2,000	2,000	3,220	(1,220)
Injection Well Monitoring	700	700	626	74
Capital Outlay	2,500	2,500	1,093	1,407
Debt Service	225,000	225,000	300,000	(75,000)
Total Expenditures	633,600	633,600	738,697	(105,097)
Excess (deficit) of revenues over expenditures and net change in fund balance	120,764	120,764	(14,267)	(135,031)
Fund balance at beginning of year	1,292,699	1,292,699	1,292,699	-
Fund balance at end of year	$ 1,413,463	$ 1,413,463	$ 1,278,432	$ (135,031)

The accompanying notes are an integral part of this statement.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

General

The basic financial statements of the North Texas Groundwater Conservation District (District) have been prepared in conformity with accounting principles generally accepted in the United Sates of America (GAAP) applicable to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard setting body for establishing governmental accounting and financial reporting principles.

The North Texas Groundwater Conservation District (District), is a political subdivision of the State of Texas, created under the authority of Article XVI, Section 59, Texas Constitution, and operating pursuant to the provisions of he Texas Water Code, Chapter 36, and Senate Bill 2497, Acts of the 81st Texas Legislature, Regular Session, 2010. The District encompasses the North Texas counties of Collin, Cooke, and Denton. The Board of Directors (Board), a nine member group constituting an on-going entity, is the level of government which has governance responsibilities over all activities within the jurisdiction of the District. The Board is not included in any other governmental "reporting entity" as defined in Section 2100, Codification of Governmental Accounting and Reporting Standards, since Board members are appointed, have decision making authority, the power to designate management, the responsibility to significantly influence operations and primary accountability for fiscal matters. The purpose of the District is to help accomplish the objectives set for in Article XVI, Section 59 of the Texas Constitution related to the conservation and development of water resources of the State of Texas.

Reporting Entity

In evaluating how to define the District, for financial reporting purposes, management has considered all potential component units. The decision not to include a potential component unit in the reporting entity was made by applying the criterion set forth in GAAP. The basic but not the only criterion for including a potential component unit within the reporting entity is the governing body's ability to exercise oversight responsibility. The most significant manifestation of this ability is financial interdependency. Other manifestations of the ability to exercise oversight responsibility include, but are not limited to, the selection of governing authority, the designation of management, the ability to influence operations and accountability for fiscal matters. The other criterion used to evaluate potential component units for inclusion or exclusion from the reporting entity is the existence of special financing relationships, regardless of whether the District is able to exercise oversight responsibilities. Based upon the application of these criteria, no potential component units have been included in this report. The District has no ability to exercise influence or control any other government unit's operations, budgets, or funding.

Basis of Presentation

The government-wide financial statements (the statement of net position and the statement of activities) report information on all of the activities of the District. Governmental activities, which normally are supported by taxes, intergovernmental revenues, and other non-exchange transactions are reported separately from business-type activities, which rely to a significant extent on fees and charges for support.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Basis of Presentation – continued

The statement of activities demonstrates the degree to which the direct expenses of a given program are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific program. Program revenues include 1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given program and 2) operating or capital grants and contributions that are restricted to meeting the operational or capital requirements of a particular program. Other items not properly included among program revenues are reported instead as general revenues.

Fund Financial Statements:

The District segregates transactions related to certain functions or activities in separate funds in order to aid financial management and to demonstrate legal compliance. Separate statements are presented for governmental and proprietary activities. These statements present each major fund as a separate column on the fund financial statements; all non-major funds are aggregated and presented in a singe column. The District has no proprietary activities, or non-major funds.

Governmental funds are those funds through which most governmental functions typically are financed. The measurement focus of governmental funds is on the sources, uses and balance of current financial resources. The District has presented the following major governmental fund:

General Fund

The General Fund is the main operating fund of the District. This is a budgeted fund and is used to account for the acquisition and use of the District's expendable financial resources and the related liabilities. The measurement focus is based upon determination of changes in financial position rather than upon net income determination.

Measurement Focus/Basis of Accounting

Measurement focus refers to what is being measured; basis of accounting refers to when revenues and expenditures are recognized in the accounts and reported in the financial statements. Basis of accounting relates to the timing of the measurement made, regardless of the measurement focus applied.

The government-wide statements are reported using the economic resources measurement focus and the accrual basis of accounting. The economic resources measurement focus means all assets and liabilities (whether current or non-current) are included on the statement of net position and the operating statements present increases (revenues) and decreases (expenses) in net total position. Under the accrual basis of accounting, revenues are recognized when earned. Expenses are recognized at the time the liability is incurred.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Measurement Focus/Basis of Accounting – continued

Governmental fund financial statements are reported using the current financial resources measurement focus and are accounted for using the modified accrual basis of accounting. Under the modified accrual basis of accounting, revenues are recognized when susceptible to accrual; i.e.; when they become both measurable and available. "Measurable" means the amount of the transaction can be determined and "available" means collectible within the current period or soon enough thereafter to be used to pay liabilities of the current period. For this purpose, the District considers revenues to be available if they are collected within 90 days of the end of the current fiscal year. Expenditures are recorded when the related fund liability is incurred. However, debt service expenditures, as well as expenditures related to compensated absences are recorded only when payment is due.

Assessments are recognized under the susceptible to accrual concept. Interest income is recorded as earned, since it is measurable and available.

Budgetary Data

The District uses the following procedures in establishing the budget reflected in the general purpose financial statements:

1. Prior to the beginning of each fiscal year, the Board of Directors is presented with a proposed budget for the year beginning on the following January 1. The budget includes proposed expenditures and the means of financing them. The budget is legally enacted though passage of a resolution.

2. Public hearings are conducted to obtain citizen's comments.

3. An annual budget is legally adopted for the General Fund. The budget is adopted on a basis consistent with accounting principles generally accepted in the United States of America.

4. Revisions to the budget that alter General Fund expenditures must be approved by the Board of Directors. The fund level is the legal level of budgetary control. Appropriations lapse at year-end.

5. Original budgeted amounts presented in the budgetary comparison schedule are as originally adopted by the Board of Directors. The final amended budget is as amended by the Board during the year.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Capital Assets

Capital assets, which can include land, buildings, vehicles, furniture and equipment, are reported in government-wide financial statements. All capital assets are valued at historical cost or estimated historical cost if actual historical cost is not available. Donated assets are valued at their fair market value on the date donated. Repairs and maintenance are recorded as expenses. Renewals and betterments are capitalized.

Assets capitalized have an original cost of $500 or more and over one year of useful life. Depreciation has been calculated on each class of depreciable property using the straight-line method. The District's capital assets at December 31, 2016 consist of a vehicle and equipment that are being depreciated over a 7 year estimated useful life.

Cash and Cash Equivalents

The District's cash and cash equivalents are considered to be cash on hand, demand deposits, and short-term investments with original maturities of three months or less from the date of acquisition. Investments are carried at fair value or cost, if maturities are one year or less. Fair value is determined as the price at which two willing parties would complete an exchange.

Fund Balance

The District has implemented GASB Statement No. 54, "Fund Balance Reporting and Governmental Fund Type Definitions." This Statement provides more clearly defined fund balance categories to make the nature and extent of the constraints placed on a government's fund balances more transparent.

Fund Balance Classification: The governmental fund financial statements present fund balances based on classifications that comprise a hierarchy that is based primarily on the extent to which the District is bound to honor constraints on the specific purposes for which amounts in the respective governmental funds can be spent. The classifications used in the governmental fund financial statements are as follows:

- Nonspendable: This classification includes amounts that cannot be spent because they are either (a) not in spendable form or (b) are legally or contractually required to be maintained intact. The District has classified prepaid items as being nonspendable as these items are not expected to be converted to cash.

- Restricted: This classification includes amounts for which constraints have been placed on the use of the resources either (a) externally imposed by creditors, grantors, contributors, or laws or regulations of other governments, or (b) imposed by law through constitutional provisions or enabling legislation. The District had no restricted fund balances at December 31, 2016.

- Committed: This classification includes amounts that can be used only for specific purposes pursuant to constraints imposed by formal action of the District's Board of Directors. The Board of Directors establishes (and modifies or rescinds) fund balance commitments by passage of a resolution. This can also be done through adoption and amendment of the budget. These amounts cannot be used for any other purpose unless the Board removes or changes the specified use by taking the same type of action that was employed when the funds were initially committed. This classification also includes contractual obligations to the extent that existing resources have been specifically committed for use in satisfying those contractual requirements. The District had $825,000 of fund balances at December 31, 2016 committed for the following purposes: geodatabase upgrades, permanent well monitoring equipment, downhole well camera, well pulling program, legal, well plugging program and monitoring well maintenance/closure funds.

- Assigned: This classification includes amounts that are constrained by the District's intent to be used for a specific purpose but are neither restricted nor committed. This intent can be expressed by the Board of Directors or through the Board delegating this responsibility to other individuals in the District. The District had no assigned fund balances at December 31, 2016.

- Unassigned: This classification includes all amounts not included in other spendable classifications, including the residual fund balance for the General Fund. The District has adopted a fund balance policy that expresses an intent to maintain a level of unassigned fund balance equal to a minimum of 33% of total general fund expenditures.

Net Position

Net position represents the difference between assets and liabilities. Net position invested in capital assets consists of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowing used for the acquisition, construction or improvements of those assets, and adding back unspent proceeds. Net position is reported as restricted when there are limitations imposed on their use either through the enabling legislations adopted by the District or through external restrictions imposed by creditors, grantors or laws or regulations of other governments.

NOTE 2 – DEPOSITS AND INVESTMENTS WITH FINANCIAL INSTITUTIONS

The District's funds are deposited and invested in Independent Bank, McKinney, TX. The bank deposits for safekeeping and trust with the District's agent bank approved pledged securities in an amount sufficient to protect District funds on a day-to-day basis. The pledge of approved securities is waived only to the extent of the bank's dollar amount of Federal Deposit Insurance Corporation ("FDIC") insurance.

1. Cash Deposits:

At December 31, 2016, the carrying amount of the District's deposits in checking accounts and interest-bearing accounts was $1,152,637 and the bank balance was $1,179,424. The District's cash deposits at December 31, 2016 were entirely covered by FDIC insurance or pledged collateral.

2. Investments:

The Public Funds Investment Act (Government Code Chapter 2256) contains specific provisions in the areas of investment practices, management reports and establishment of appropriate policies. Among other things, it requires the District to adopt, implement, and publicize an investment policy. That policy must address the following areas: (1) safety of principal and liquidity, (2) portfolio diversification, (3) allowable investments, (4) acceptable risk levels, (5) expected rates of return, (6) maximum allowable stated maturity of portfolio investments, (7) maximum average dollar-weighted maturity allowed based on the stated maturity date for the portfolio, (8) investment staff quality and capabilities, (9) and bid solicitation preferences for certificates of deposit. Statutes authorize the District to invest in (1) obligations of the U.S. Treasury, certain U.S. agencies, and the State of Texas, (2) certificates of deposit, (3) certain municipal securities, (4) money market savings accounts, (5) repurchase agreements, (6) bankers acceptance, (7) mutual funds, (8) Investment pools, (9) guaranteed investment contracts, (10) and common trust funds.

The Act also requires the District to have independent auditors perform test procedures related to investment practices as provided by the Act. The District is in substantial compliance with the requirements of the Act and with local policies.

In compliance with the Public Funds Investment Act, the District has adopted a deposit and investment policy. That policy addresses the following risks:

a. Custodial Credit Risk – Deposits: In the case of deposits, this is the risk that, in the event of a bank failure, the District's deposits may not be returned to it. As of December 31, 2016, the District's cash balances totaled $1,179,424. The District's deposits were not exposed to custodial credit risk at December 31, 2016.

b. Custodial Credit Risk – Investments: For an investment, this is the risk that, in the event of the failure of the counterparty, the District will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. At December 31, 2016, the District was not exposed to custodial credit risk.

c. Credit Risk: This is the risk that an issuer or other counterparty to an investment will be unable to fulfill its obligations. The rating of securities by nationally recognized rating agencies is designed to give an indication of credit risk. The District was not exposed to credit risk at December 31, 2016.

d. Interest Rate Risk: This is the risk that changes in interest rates will adversely affect the fair value of an investment. The District was not exposed to interest rate risk at December 31, 2016.

e. Foreign Currency Risk: This is the risk that exchange rates will adversely affect the fair value of an investment. At December 31, 2016, the District was not exposed to foreign currency risk.

Concentration of Credit Risk: This is the risk of loss attributed to the magnitude of the District's investment in a single issuer (i.e., lack of diversification). Concentration risk is defined as positions of 5 percent or more in the securities of a single issuer. At December 31, 2016, the District was not exposed to concentration of credit risk.

NOTE 3 – CAPITAL ASSETS

Capital asset activity for the year ended December 31, 2016, was as follows:

	Balance January 1, 2016	Additions	Retirements	Balance December 31, 2016
Governmental activities:				
Vehicle	$ 16,624	$ -	$ -	$ 16,624
Equipment	10,042	-	-	10,042
Totals at Historical Cost	26,666	-	-	26,666
Less accumulated depreciation:				
Vehicle	(10,292)	(2,375)	-	(12,667)
Equipment	(1,999)	(1,435)	-	(3,354)
Total accumulated depreciation	(12,211)	(3,810)	-	(16,021)
Governmental activities capital assets, net	$ 14,455	$ (3,810)	$ -	$ 10,645

NOTE 4 – RISK MANAGEMENT

The District is exposed to various risks of loss related to torts theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. During fiscal year 2016, the District purchased commercial insurance to cover general liabilities. There were no significant reductions in coverage in the past fiscal year, and there were no settlements exceeding insurance coverage for each of the past three years.

NOTE 5 – ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

NOTE 6 – SUBSEQUENT EVENTS

Management has reviewed events subsequent to December 31, 2016 through June 2, 2017, which is the date the financial statements were available to be issued. No subsequent events were identified that were required to be recorded or disclosed in the financial statements.

NOTE 7 – LONG-TERM DEBT

The following is a summary of long-term activity of the District for the year ended December 31, 2016:

	Beginning Balance 1/01/16	Additions	Retirements	Ending Balance 12/31/16	Current Portion of Debt
Loans Payable	$ 291,160	$ -	$ 291,160	$ -	$ -
Total	$ 291,160	$ -	$ 291,160	$ -	$ -

Loans

The District was obligated under a contract executed by the Board for the organizational and operational costs of the District prior to the receipt of revenues necessary for operations. This contract was with the participating counties of Collin, Cooke, and Denton. This loan, in the contract-stated amount of $900,000, incurred no interest and had a payback schedule that called for repayment of the loan, in equal payments to each county, beginning in 2013 and maturing fully in 2017. Though the contract terms of the agreement stated that the loan carried no interest, GAAP requires that interest be imputed on long-term loans, thus converting $133,968 of the loan repayment to interest, and causing the remaining $766,032 to be reflected as principal payable on the Statement of Net Position. Interest expense, as imputed, accrued each year and was reflected as interest expense.

The loan contract did not specify the amount required to be paid each year on the loan. Though the District had until 2017 to complete the loan repayments, the remaining balance of the loan was paid in full in the year ended December 31, 2016.

OTHER SUPPLEMENTARY INFORMATION

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

COMPARATIVE BALANCE SHEET
GENERAL FUND
DECEMBER 31, 2016 AND 2015

	2016	2015
Assets:		
Cash and Cash Equivalents	$ 1,152,637	$ 1,187,942
Accounts Receivable	127,970	208,743
Other Receivables	46,573	2,199
Prepaid Costs	4,566	4,980
Total Assets	$ 1,331,746	$ 1,403,864
Liabilities and Fund Balance:		
Liabilities:		
Accounts Payable	$ 25,783	$ 84,159
Well Driller Deposits	27,531	27,006
Total Liabilities	53,314	111,165
Fund Balance:		
Nonspendable Fund Balance:		
Prepaid Costs	4,566	4,980
Committed Fund Balance	825,000	-
Unassigned Fund Balance	448,866	1,287,719
Total Fund Balance	1,278,432	1,292,699
Total Liabilities and Fund Balance	$ 1,331,746	$ 1,403,864

See accompanying auditors' report.

NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

COMPARATIVE SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES
IN FUND BALANCE - GENERAL FUND
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

	2016	2015
Revenues:		
Groundwater Usage Fees	$ 625,978	$ 739,685
Well Registration Fees	20,400	23,000
Well Driller Deposit Forfeitures	2,200	3,300
GMA8 Fees	51,043	80,956
Interest Earned	2,042	1,829
Penalties and Late Charges	22,767	6,814
Total Revenues	724,430	855,584
Expenditures:		
Administrative - General Manager	45,028	41,760
Administrative - Secretarial & Clerical	59,232	60,524
Administrative - Project Coordinator	13,618	8,393
Field Technicians	108,794	77,498
Consultants	29,013	55,915
Accounting and Auditing	31,546	22,098
Legal	60,236	52,999
Software Maintenance	7,934	8,057
Direct Costs Reimbursed	3,874	3,216
Insurance	3,724	4,136
Vehicle Costs	5,685	4,324
Office Rent	2,400	2,400
Telephone	1,913	1,884
GMA8 Costs	57,850	84,595
Legal Notices	1,303	102
Dues and Subscriptions	1,608	1,770
Meetings and Conferences	3,220	965
Injection Well Monitoring	626	818
Small Equipment	1,093	-
Capital Outlay	-	2,285
Debt Service	300,000	225,000
Total Expenditures	738,697	658,739
Excess (deficit) of revenues over expenditures and net change in fund balance	(14,267)	196,845
Fund balance at beginning of year	1,292,699	1,095,854
Fund balance at end of year	$ 1,278,432	$ 1,292,699

See accompanying auditors' report.

Members:
AMERICAN INSTITUTE OF
CERTIFIED PUBLIC
ACCOUNTANTS
TEXAS SOCIETY OF CERTIFIED
PUBLIC ACCOUNTANTS

HANKINS, EASTUP, DEATON,
TONN & SEAY
A PROFESSIONAL CORPORATION
CERTIFIED PUBLIC ACCOUNTANTS

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INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

Board of Directors
North Texas Groundwater Conservation District
Denison, Texas

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities and each major fund of North Texas Groundwater Conservation District, as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise North Texas Groundwater Conservation District's basic financial statements, and have issued our report dated June 2, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies in internal control, such that there is a reasonable possibility that a material misstatement of the District's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the District's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards.*

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control or on compliance. This report is an integral part of the audit performed in accordance with *Government Auditing Standards* in considering the District's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Hankins, Eastup, Deaton, Tonn & Seay, PC
Denton, Texas

June 2, 2017

ATTACHMENT J

Brochure – Well Registration for New Land Owners

About the District

The North Texas Groundwater Conservation District was created by the 81st Texas Legislature under the authority of Section 59, Article XVI, of the Texas Constitution, and in accordance with Chapter 36 of the Texas Water Code, by the Act of May 27, 2009, 81st Leg., R.S., ch. 248, 2009 Tex. Gen. Laws 686, codified at Texas Special District Local Laws Code Ann. ch. 8856.

The District was created by the Texas Legislature to serve a public use and benefit, and is essential to accomplish the objectives set forth in Section 59, Article XVI, of the Texas Constitution. The District's boundaries are coextensive with the boundaries of Collin, Cooke and Denton Counties, Texas, and all lands and other property within these boundaries will benefit from the works and projects that will be accomplished by the District.

North Texas Groundwater Conservation District

P.O. Box 508
Gainesville, Texas 76241-0508
Phone: (855) 426-4433
Fax: (903) 523-7687
Email: ntgcd@northtexasgcd.org
www.northtexasgcd.org

NTGCD NORTH TEXAS GROUNDWATER CONSERVATION DISTRICT

Well Registration for New Land Owners

Why is Registration Required

In accordance with Rule 3.8 of the District's Temporary Rules, a new well owner shall notify the District in writing within 90 days of a change in ownership of a well. If the well has not been previously registered with the District, the owner will be required to register their well at that time.

Information Required for a Change in Ownership:

- Effective date of the change in ownership.
- Name
- Contact Information
- Mailing Address
- Well Identification

Information Required for Registering an Unregistered Existing Well:

- Name
- Contact Information
- Mailing Address
- Well Location
- Well Information if Possible
- Water Use
- Any other information deemed reasonably necessary by the District's Board of Directors.

There is NO FEE for registering your existing well or change of ownership.

What the Owner Needs to Do

The owner can download the required forms at www.northtexasgcd.org/forms.html and submit the filled out form to the District using the following contact information:

P.O. Box 508
Gainesville, Texas 76241-0508
Fax: (903) 523-7687
Email: ntgcd@northtexasgcd.org

For further information of assistance filling out the required forms, please contact the District at (855) 426-4433.