2019 ANNUAL REPORT

All photos were taken during the Trinity Oasis, LLC 30 day pump test.

Clearwater
Underground Water Conservation District
Every drop counts!

Clearwater UWCD
P.O. Box 1989
Belton, Texas
www.cuwcd.org

Photos Courtesy of Dr. Joe C. Yelderman Jr., Baylor University

District Mission Statement

Develop and implement an efficient, economical and environmentally sound groundwater management program to protect and enhance the water resources of the District.

Clearwater Underground Water Conservation District

Annual Report - Fiscal Year 2019

The Annual Report for Fiscal Year 2019 (FY19) is presented to the Directors of the Clearwater Underground Water Conservation District (CUWCD or District) by May of the following Fiscal Year (May 2020). This report summarizes the activities and accomplishments of the District during FY19 focusing on administrative tasks, management plan requirements, and miscellaneous activities. Most activities are based on the District's fiscal year; however, information dealing with well registration, permitting, and production are based on the 2019 calendar year.

2018-2019 Board of Directors

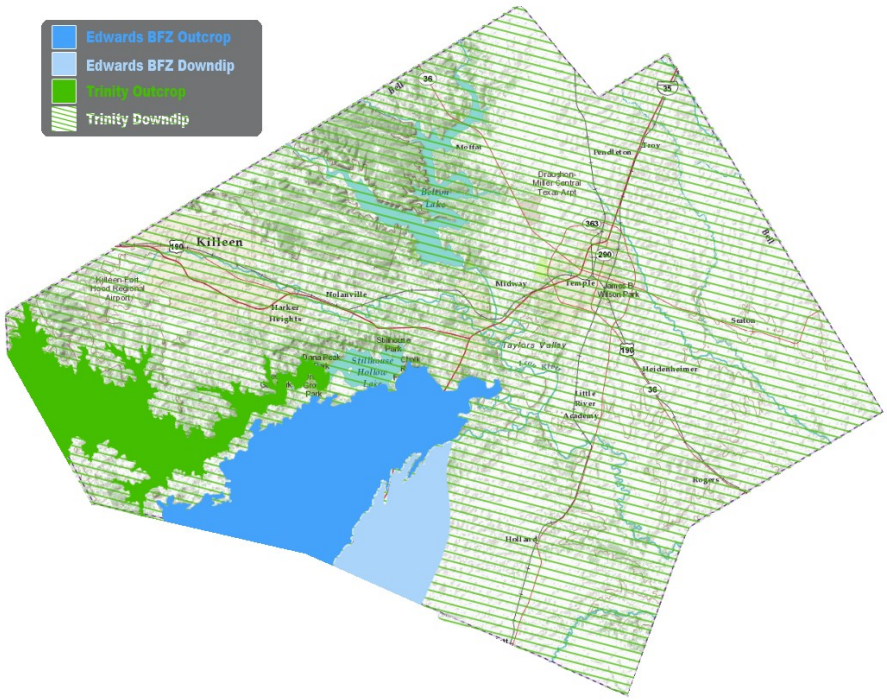
Jody Williams	Gary Young	Leland Gersbach	David Cole	Scott Brooks
Precinct 3	Precinct 2	Precinct 1	At-Large	Precinct 4

Contents

1. Introduction

The Clearwater Underground Water Conservation District was created by the State legislature in 1989 to manage the groundwater resources of Bell County. The District was approved by the voters of Bell County in August 1999 and opened its doors for business in February 2002. Clearwater's fiscal year runs from October 1st through September 30th. This report summarizes the accomplishments and activities of the District during FY19; but reflects registration, permitting, and production figures for the 2019 calendar year.

The District manages the groundwater resources from two major aquifers: The Trinity and The Edwards (BFZ) in Bell County, TX. The Trinity aquifer underlies all of Bell County and is below the Edwards (BFZ), while the Edwards (BFZ) is located in just the southern part of the county.



The Trinity aquifer is comprised of three water bearing layers within the boundaries of Bell County. These layers are the Upper Trinity (Glen Rose), Middle Trinity (Hensell), and Lower Trinity (Hosston). Other water bearing formations in Bell County are Alluvium, Austin Chalk, Buda, Edwards Equivalent, Kemp, Lake Waco, Ozan, and Pecan Gap.

2. Administrative Tasks

Administrative tasks include internal administrative activities necessary for a groundwater district to function effectively. Management Plan requirements include the required tasks and activities identified in the District's Management Plan. Miscellaneous activities include other activities and programs that have been an integral part of the District but are not required by the Management Plan.

A. Contracts / Agreements

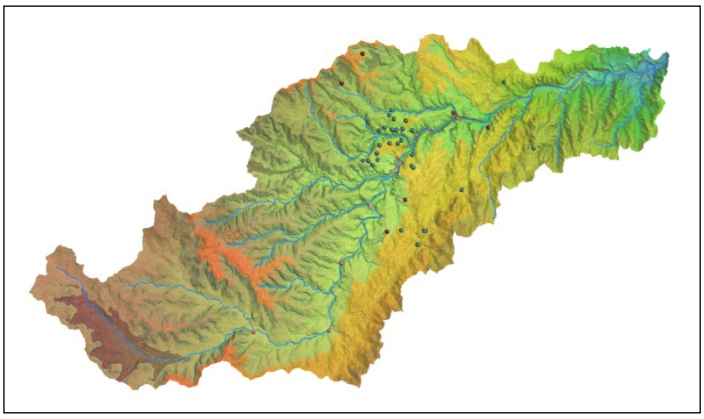
1. Technical Consulting Services

LRE Water, LLC / WSP, USA

Clearwater UWCD has continued with a professional services contract for general consulting with LBG-Guyton Associates that began in calendar year 2014 and included fiscal years FY14, FY15, FY16, FY17 and FY18. In January of 2018, LBG-Guyton was sold to WSP, USA. WSP, USA continues to provide technical representation of the district in GMA 8 relating to development of desired future conditions associated with required joint planning. In FY19, Clearwater UWCD began a professional services contract with LRE Water, LLC who provides administrative and technical reviews of drilling and operating permits along with investigative analysis of aquifer conditions and well construction complaints.

Allan R. Standen, LLC

Clearwater UWCD maintains a professional services contract with Allan R. Standen LLC for general consulting services and the annual update of our 3D model. The 2019 updates included the addition of new geophysical and well drilling logs from throughout the county to the 3D model. Updating our model on an annual basis allows for a more accurate analysis and use of this tool by district staff, consulting hydrogeologists, and landowners for well development and prognosis of the aquifer depths prior to drilling. The tool also continues to assist the district in source aquifer determination of newly drilled wells.



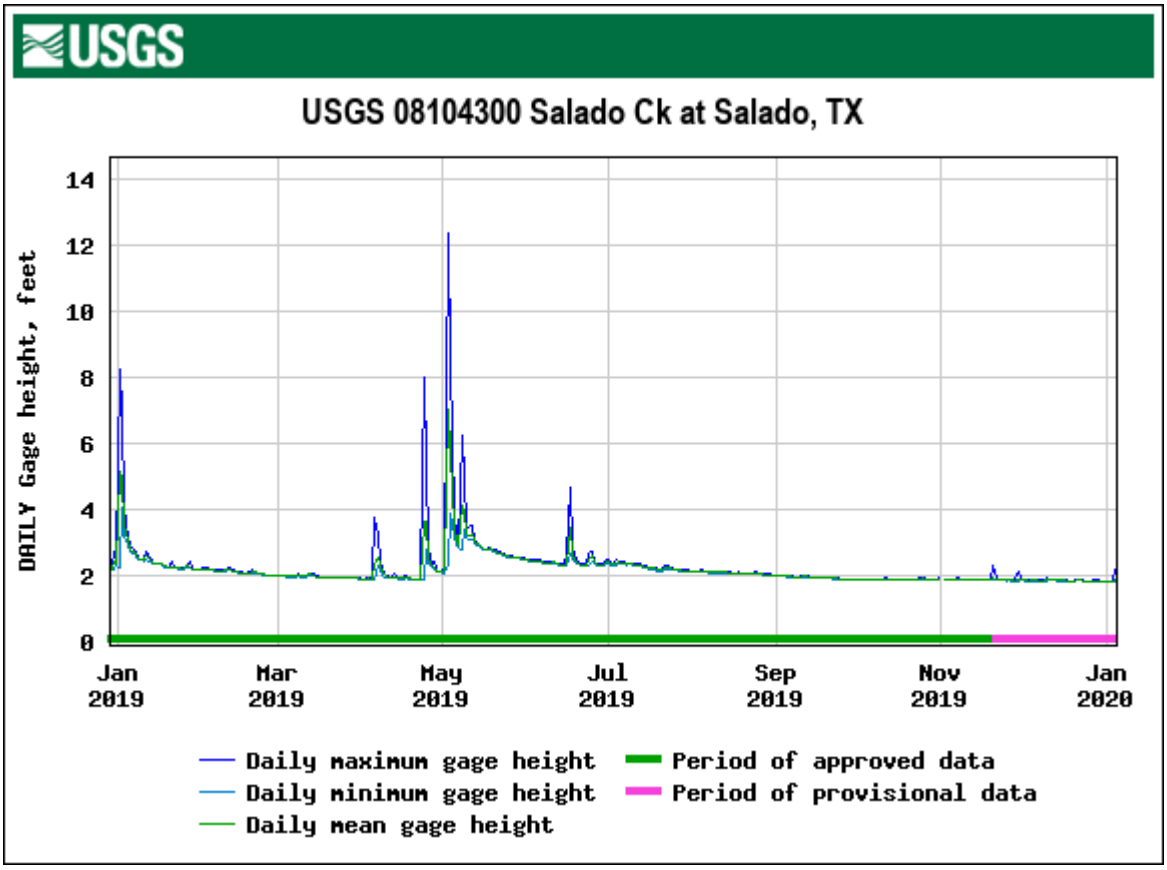
Salado Creek Watershed from Bell County 3D Groundwater Model

Halff Associates, Inc

Halff Associates, Inc. created and continues to manage the District's online GIS website. This GIS platform allows the District web-based access to the entire database of wells that has been compiled through the years. All well information is available online to staff as well as the public. Some of the information available includes well latitude and longitude along with ground level elevation of the well head and total depth of well. In 2019, Halff Associates continued technical support and hosting of the District's online GIS website.

U. S. Geological Survey, Texas Water Science Survey

During the spring of 2013 the USGS gauging system was installed in the Salado Creek and the process of analyzing the data and recalibrating the system began. Throughout 2019, the system was continuously fine-tuned to ensure accuracy of the data collected. This gauging system and relationship with the USGS have proved to be an important step forward in monitoring spring flow both now and well into the future. The image below shows the 2019 stream flow data taken by the gauging system in Salado Creek. The live data can be found online on our website: http://www.cuwcd.org/salado-springs/salado-creek-gauges/



Baylor University, Department of Geology

Clearwater UWCD continues to contract with the Department of Geology at Baylor University to conduct research projects. The overall goal for the proposed research is to gain a deeper understanding of the Northern Segment of the Edwards Aquifer. Specifically, knowledge of how much recharge occurs and the pathways that recharge takes to the aquifer will greatly assist groundwater resource management. An enhanced scientific understanding of the Northern Segment of the Edwards Aquifer will provide insight to CUWCD and community stakeholders, as well as support collaboration between the district and community in future decision-making processes that will be impacted by the Endangered Species Act.

In FY19, the District jointly contracted with Wellntel and Baylor University to deploy a groundwater-level monitoring network in the District to complement ongoing monitoring in the Middle Trinity

aquifer. The goal of this program is to gain experience in how the WellIntel technology works and to become familiar with the data management and analytical capabilities, and to demonstrate how the instrumentation of private wells pumping in the Middle Trinity aquifer can provide insight into the stress experienced by the aquifer, over and above what is being seen by dedicated monitoring wells.

The studies the District has funded can be found on our website: http://www.cuwcd.org/aquifer-science/edwards-bfz-aquifer/

2. Legal Services

The District requests legal consulting services on an as-needed basis and utilizes Lloyd Gosselink Rochelle & Townsend, P.C. (LGRT) for consultation. LGRT was the District's sole advisor during FY19 which included the following issues:

- Research and guidance on permitting issues, spacing issues, rule interpretation, public hearing notices, meeting cancellation notices, conservation easements and topics allowed for discussion in closed session.
- Representation of groundwater districts at Texas Water Conservation Association Groundwater Sub-Committee on Desired Future Conditions.
- Research and guidance on the listing of the Salado Salamander, the process for comments and support of CUWCD as they engaged as a stakeholder with the Bell County Adaptive Management Coalition.

3. Other Services

Bell County Adaptive Management Coalition

The Board entered into an interlocal agreement beginning in fiscal year 2012 that continued into fiscal year 2019. CUWCD, the Bell County Commissioners Court, Village of Salado, Salado Water Supply Corporation, Temple Area Builders Association and Billie Hanks, Jr. have collectively contributed $360,737.74 since 2012 to evaluate current science and to develop new science regarding the Edwards (BFZ) aquifer and the Salado Salamander habitat. Total expenditures for FY12 - FY19 are $283,462.12 leaving a balance of $77,847.17 to fund the FY20 studies. The District defends the position that regulating mechanisms are in place (by CUWCD) on spring flow to protect the specie.

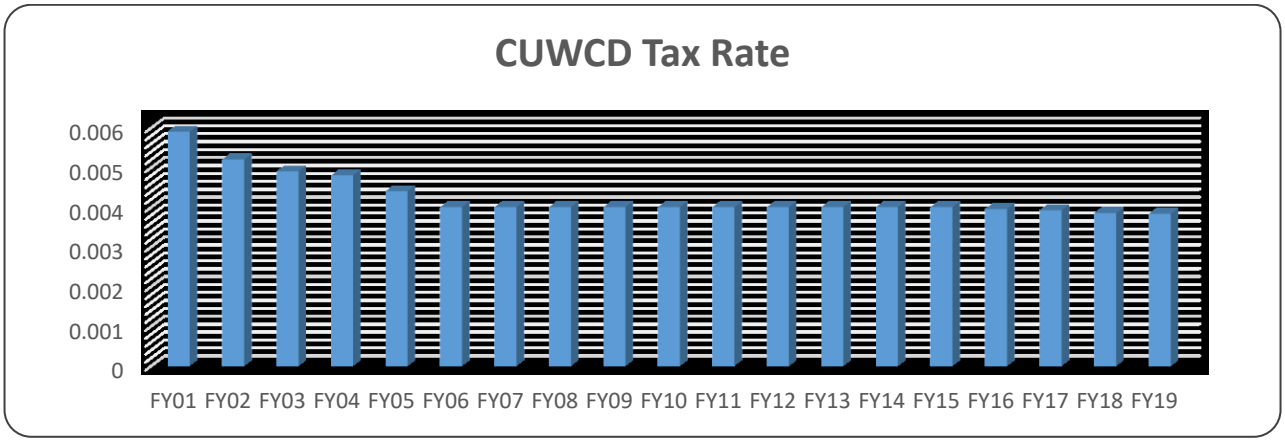
Alton D. Thiele, P.C.

An annual audit of the District's finances is required by Chapter 36.153 of the Texas Water Code to determine the financial condition of the district. Alton D. Thiele, P.C., Certified Public Accountant located in Belton, Texas provides the annual financial audit for the District. For more information, see section "B.2 Financial Audit" later in this report.

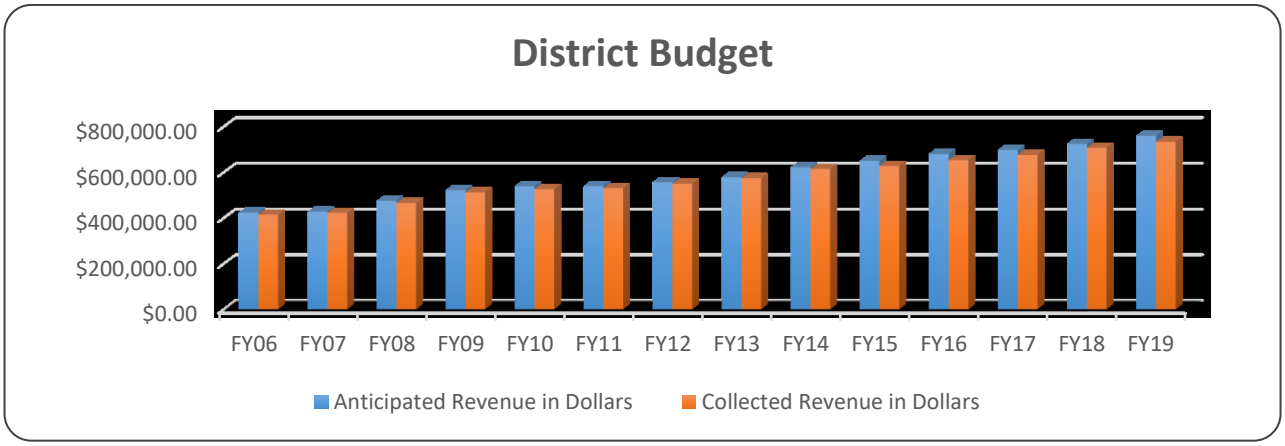
B. Financial Items

1. Budget and Tax Rate

The adopted tax rate for FY19 was $0.00383/$100 valuation. The Board voted to lower the tax rate for the fourth consecutive year. Since the inception of the District, the Board has consistently lowered or kept the same tax rate since it began assessing taxes. Two workshops (June and July) were held in 2018 to develop an operating budget for the upcoming fiscal year (FY19) and to set the corresponding ad valorem tax rate. The Board voted to lower the tax rate for FY19 to $0.00383/$100 valuation.



The Budget for FY19 was $759,711.00, actual income collected was $733,178.84. The total expenditures for FY19 were $605,608.82. The Board prescribed closing the year with $127,570.02 being returned to the Reserve Fund.



The approved budget for FY19, along with the schedule of revenues and expenditures is attached as Appendix A.
Online: http://www.cuwcd.org/public-records/cuwcd-budget/

2. Financial Audit

An annual audit of the District's finances is required by Chapter 36.153 of the Texas Water Code to determine the financial condition of the District. Alton D. Thiele, P.C., Certified Public Accountant

located in Belton, Texas provided the 2019 annual financial audit for the District. The audit began immediately at the closing of FY19 on September 30, 2019 and they concluded their audit and submitted their findings to the District in February 2020.
See Appendix B for FY19 Financial Audit.
Online: http://www.cuwcd.org/public-records/audits/

C. Miscellaneous Policies / Issues

1. District Rule Amendments

The Board amended the District Rules in March 2016 in accordance with Chapter 36 requiring public notice, a public hearing, and Board approval. The suggestions to the rule amendments were based on the legislative mandates from the seven bills that were passed by the Texas Legislature that affected Chapter 36 of the Texas Water Code, previous discussions, construction standards and water quality within the District.

See our website for complete rules: http://www.cuwcd.org/regulatory-program/district-rules/

2. Bylaws Revised

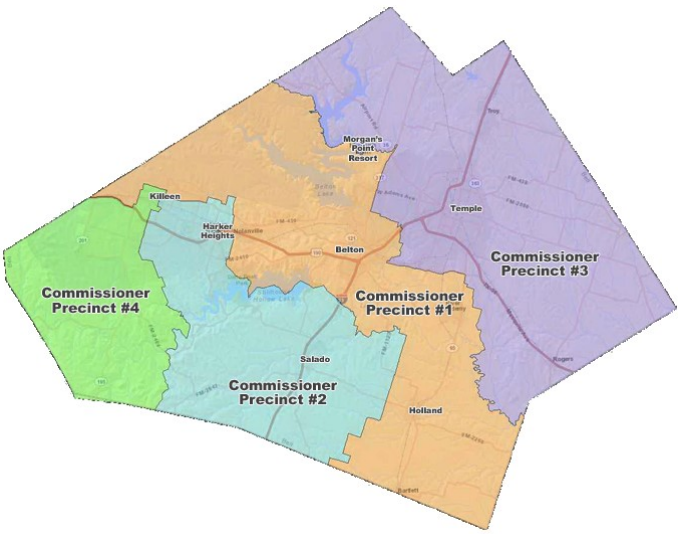
At the time the District Rules were amended, the rules that addressed the operations of the District were deleted and moved to the Bylaws. The Board of Directors approved the amendments to the Bylaws by resolution on April 13, 2016.

See our website for complete Bylaws: http://www.cuwcd.org/district-overview/bylaws/

D. Board of Directors

1. District Officers

The Board of Directors, per District bylaws, elect officers annually at the first board meeting of the calendar year. The FY 2019 Officers are identifie[illegible]
office they held and precinct they represent. The[illegible]
a map of the Bell County Commissioner Precincts
serves as the precinct boundaries for the District.



Leland Gersbach, President – Precinct 1

David Cole, Vice President – At Large

Gary Young, Secretary – Precinct 2

Jody Williams, Director – Precinct 3

Scott Brooks, Director – Precinct 4

In October of 2018, Director Wallace Biskup resigned as the Precinct 3 Director. Jody Williams was appointed as the new Precinct 3 Director on December 12, 2018 and sworn in on January 9, 2019.

2. Meetings - FY19 (Oct 2018-Sept 2019)

The Board of Directors held 13 Board meetings and 1 informational meeting in FY19. The Workshops and regular Board meeting agendas included discussion and presentations on the topics listed below.

- Presentations by USGS Water Science Group
- Presentations by Baylor University regarding current status of the Edwards (BFZ) Aquifer
- Legislative updates
- Conduct hearings on drilling and operating permits
- Salado Salamander issues as it pertains to CUWCD's governance of groundwater

All board meeting agendas, minutes, and financial reports can be viewed online by visiting http://www.cuwcd.org/public-records/

E. Management Plan

Texas Water Code, Chapter 36.1071--36.1073, states the District Management Plan must be reviewed and readopted every 5 years. The plan is then subject to approval by the Texas Water Development Board (TWDB). Clearwater's Management Plan was due to the TWDB by March 6, 2016. Proposed revisions for the 5-year update to the District Management Plan went through one preliminary review by the Texas Water Development Board (TWDB). The revised Management Plan was accepted on January 13, 2016 by the Board following the public hearing on the revised Management Plan. Afterwards, the Board adopted the revised plan. The Management Plan was sent to TWDB for approval prior to the due date, March 6, 2016. The District received approval from TWDB on February 19, 2016. The current Management Plan was amended on January 9, 2019 with changes only being made to the DFC and Subsidence sections of the current plan. The Management Plan was sent to TWDB for approval prior to the due date and the District received approval from TWDB on March 12, 2019. The current Management Plan is set to expire on January 13, 2021. The District Management Plan can be found on CUWCD's website at: http://www.cuwcd.org/district-overview/management-plan/

4. Management Plan Requirements

The District Management Plan identifies the goals and objectives of the District and provides performance standards and tracking methods to measure the District's effectiveness in meeting these goals. The District goals are mandated by Texas Water Code Chapter 36, Section 36.1071. Although all groundwater conservation districts are subject to these goals, each district chooses how to best

implement the goals within their district by establishing their own objectives and performance standards.

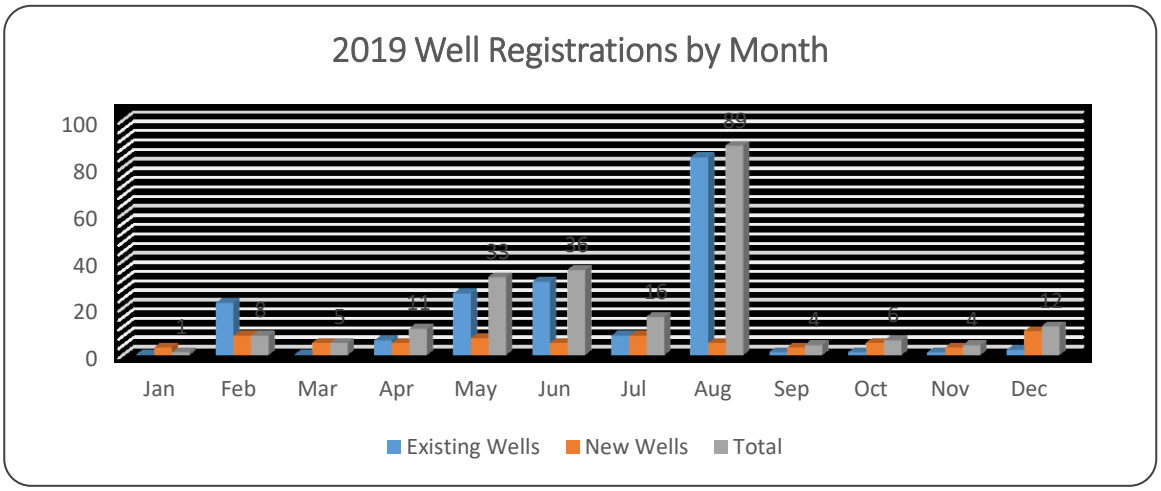
A. Providing the Most Efficient Use of Groundwater

1. Well Registrations

Objective: Each year, the District will require the registration of all wells within the District's jurisdiction.

Objective Satisfied

During calendar year 2019, 249 wells were registered. The tables below summarize well registration and permitting activity from January 1, 2019 through December 31, 2019.



Appendix C for Master Registration Table

2. Permitted Well Applications

Objective: Each year, the District will require permits for all non-exempt use of groundwater in the District as defined in the District rules, in accordance with adopted procedures.

Objective Satisfied

Of the 249 wells registered in 2019, only 10 of those were classified as non-exempt. The Table below summarizes the non-exempt wells or permits that were approved during 2019 and the corresponding permits that were issued where applicable.

Non-Exempt Permitted Well Registrations for 2019 Calendar Year

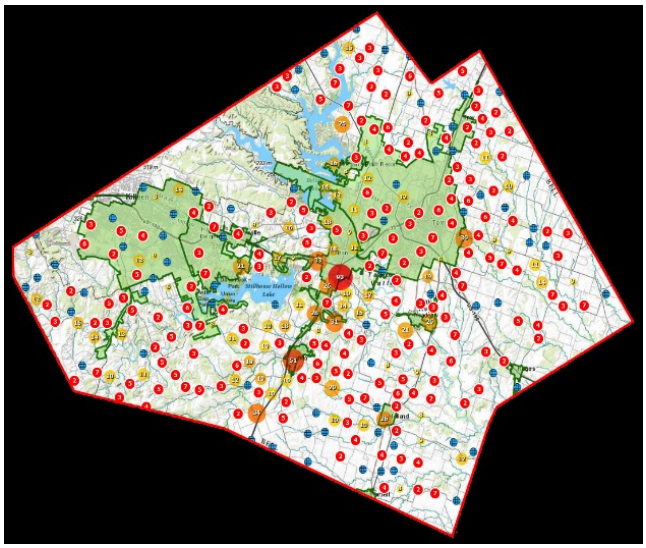
Well #	Land Owner	Ac-Ft / Year	Aquifer	Use	Permit Type
N1-19-003P	Gary Kelley	0.197	Lower Trinity	Domestic	Drilling & Operating
N1-19-007P	Lone Star Land Partners, LLC	0.60	Middle Trinity	Domestic	Drilling & Operating
N1-19-008P	Lone Star Land Partners, LLC	0.60	Middle Trinity	Domestic	Drilling & Operating
N2-19-001P	CenTex Acres 1	0.61	Middle Trinity	Domestic	Drilling & Operating
N2-19-002P	CenTex Acres 2	0.61	Middle Trinity	Domestic	Drilling & Operating
N2-19-003P	Mike Eveans	0.50	Middle Trinity	Domestic	Drilling & Operating

3. Groundwater Database

Objective: Each year, the District will maintain a groundwater database to include information relating to well location, production volume, and other pertinent information deemed necessary by the District to enable effective monitoring of groundwater in Bell County.

Objective Satisfied

District GIS Database



The District maintains an online GIS system and works closely with Halff Associates, Inc. to provide web-based access to our ever growing database of well information. Every well registered in the District is available in our database with latitude and longitude and the elevation of the land surface at the well head. With the well information, the District can attach production and permit information along with other pertinent data. The public maps are available on the District website's homepage, or by going to the following web address and clicking on Public Access Maps: http://www.cuwcd.org/

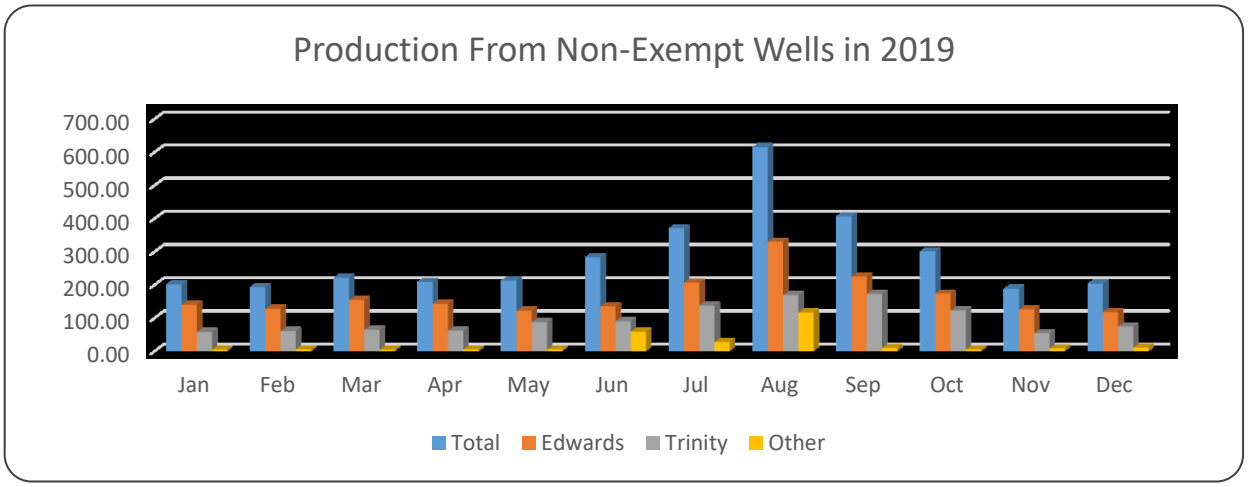
Non-exempt Well Production

The District continued collecting data from non-exempt wells during 2019. Monthly production reports are required by the 5th day of the following month for all wells with operating permits. The tables below show the total permitted amount for the non-exempt wells and their total production. In 2019, actual water production figures were significantly lower than the amount permitted. Part of this is due to the issuance of Historic and Existing Use Permits (HEUP). The HEUPs are issued for the full permit amount, regardless of whether the permittee will be using this amount during the year.

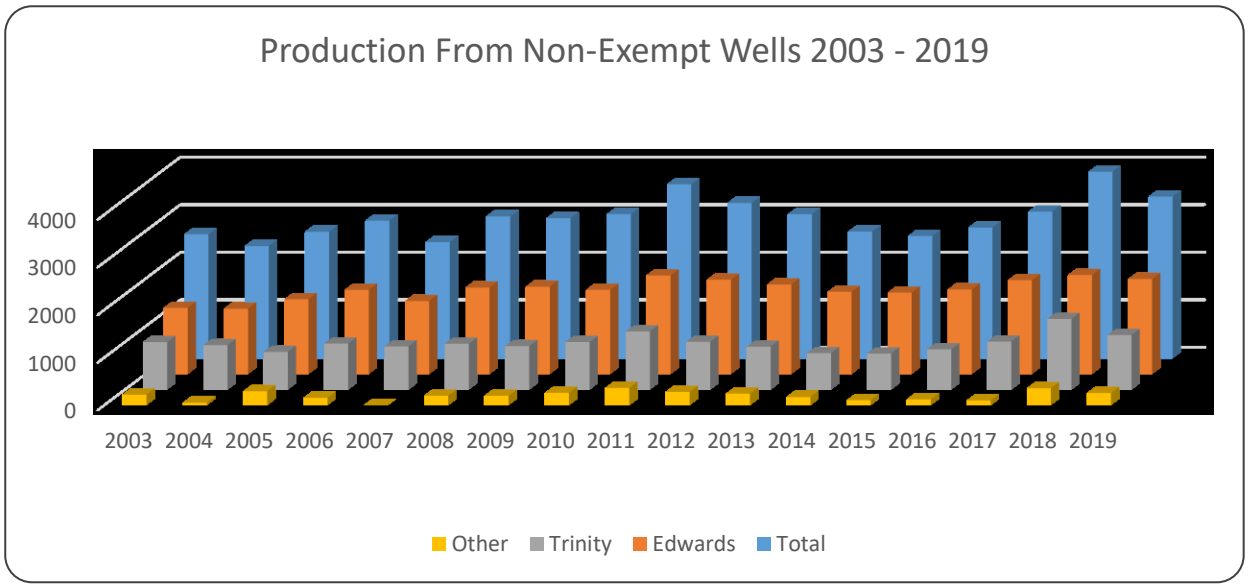
2019 Permitted Wells

	Permitted Ac-Ft	# Permitted Wells	Actual Use Ac-Ft	# Active Permitted Wells	% Usage
Edwards (BFZ)	2,510.47	54	1,994.45	45	79.45%
Trinity (total)	4,499.21	65	1,147.43	48	25.50%
Glen Rose	132.05	5	48.84	4	36.99%
Hensell	469.68	35	88.82	23	18.91%
Hosston	3,897.48	25	1,009.77	21	25.91%
Other Aquifers	578.50	21	256.72	16	44.38%
Total	7,588.18	140	3,398.6	109	44.79%

The following chart shows 2019 production by month and aquifer. Production was at its highest level during the month of August with a monthly withdrawal of 614.38 ac-ft. Throughout the year, withdrawals from the Edwards BFZ were consistently higher than from the Trinity aquifer. Production from other source formations was minimal throughout the year. Production from other source formations is higher during summer months which reflects agriculture irrigation necessary at that time of year.



In the following graph, production from 2019 (109 wells) is shown compared to production in years 2003 through 2018. Overall production in 2019 was 3,398.6 ac-ft which is slightly lower than the total production in 2018. The Edwards (BFZ) had a total production for 2019 of 1,994.45 ac-ft, total Trinity aquifer production was 1,147.43 ac-ft, and other formations produced 256.72 ac-ft of water.



See Appendix D for 2019 Well Production Report

Groundwater Transport

During 2019, six entities in Bell County transported groundwater outside the District. A total transport of 87.38 ac-ft. occurred from the Edwards BFZ aquifer and 92.43 ac-ft. from the Trinity aquifer. The District is allowed by state law to charge a transport fee of $0.025/1,000 gallons transported. This generated a total revenue of $1,464.77 for 2019.

Entity	Aquifer	County	Ac-Ft	Gallons	Fee
Bell-Milam-Falls WSC	Lower Trinity	Falls, Milam, Williamson	26.13	8,514,011	$212.85
Central Texas WSC	Lower Trinity	Falls, Milam	63.00	20,529,720	$513.24
East Bell WSC	Lower Trinity	Falls	0.77	250,555	$6.26
Jarrell-Schwertner WSC	Edwards (BFZ)	Williamson	87.38	28,472,608	$711.82
Little Elm Valley WSC	Lower Trinity	Falls	1.67	542,961	$13.57
O&B WSC	Lower Trinity	Falls	0.86	281,240	$7.03
		TOTAL	179.81	58,591,095	$1,464.77

Water Loss in Public Water Systems

The District tracks water loss of all public water supply systems in Bell County that utilize groundwater. Real Losses, also referred to as physical losses, are actual losses of water from the system and consist of leakage from transmission and distribution mains, leakage and overflows from the water system's storage tanks and leakage from service connections up to and including the meter.

Water leaking from a supply line

Bell County Water Loss 2014-2019

Entity	2019 Loss (% of water)	2018 Loss (% of water)	2017 Loss (% of water)	2016 Loss (% of water)	2015 Loss (% of water)	2014 Loss (% of water)
Armstrong WSC	19.00	18.00	11.12	15.74	15	13
Bell Co. WCID #2	14.00	11.10	9.20	8.34	11	9
Bell Co. WCID #5	24.71	16.72	20.97	10.64	14	15
Bell-Milam-Falls WSC	41.92	36.60	29.03	32.06	26	34
Central Texas WSC	9.00	8.00	8.30	9.25	NA	NA
City of Troy	21.70	34.75	17.20	9.94	N/R*	24.5
East Bell WSC	14.42	16.21	12.54	8.23	14.64	13.71
Jarrell-Schwertner WSC	50.00	48.04	49.33	50.72	56.45	54.25
Little Elm Valley WSC	20.75	23.04	22.16	25.30	33	27
Moffat WSC	26.00	26.70	19.68	10.43	16	6.37
Oenaville/Bellfalls WSC	6.42	7.39	8.99	15.29	16.6	14.47
Pendleton WSC	22.03	24.43	20.30	23.94	17.23	22.73
Salado WSC	8.30	9.76	7.60	8.80	9.8	9.6

** Not Reported*

Exempt Well Production

Each year, the exempt wells that have been registered are evaluated. The aquifer from which they are producing is determined and an estimate of their total annual production is calculated. The results are shown below for exempt wells registered through December 31, 2019. Most of the exempt wells in Bell County are used for domestic purposes and their use estimate assumes 106 gallons/person per day (USGS estimate of domestic use outside of a municipal water system) and 2.76 persons/household (U.S. Census Bureau, Population Estimates Program (PEP) July 1, 2019). Exempt well use estimate factors out all plugged, capped, monitor and inactive wells in the database.

2019 Exempt Well Production

	Reserved	Estimated Use*	# Wells
Edwards (BFZ)	825 ac-ft	361 ac-ft	841
Trinity	1,419 ac-ft	765 ac-ft	1,505
Other Aquifers	N/A	790 ac-ft	1,478
Total	2,244 ac-ft	1,916 ac-ft	3,824

** Domestic use estimate assumes 106 gallons/person per day (USGS estimate of domestic use outside of a municipal water system) and 2.84 persons/household (U.S. Census Bureau, Population Estimates Program (PEP) July 1, 2019)*

See Appendix E for 2019 Exempt Well Use

Combined Well Production Data

Combining the production from the non-exempt wells with the estimated production from the exempt wells, the following production figures result:

Aquifer	Non-Exempt Well Production (Ac-Ft / Year)	% of Total Permitted	Estimated Exempt Well Production (Ac-Ft / Year)	% of Total Reserved	Total Production (Ac-Ft / Year)	% of Total Available
Edwards (BFZ)	1,994.45	79.45	361	43.76	2,355.45	36.41
Trinity	1,147.43	25.50	765	53.91	1,912.43	20.64
Other Aquifers	256.72	44.38	790	N/A	1,046.72	N/A
Total	3,398.6	44.79	1,916	55.66	5,314.60	27.12

The chart above shows that overall, exempt wells account for approximately 55.66% of all the

groundwater produced in Bell County. In the Trinity, 53.91% of production is attributed to exempt wells and in the Edwards BFZ, exempt wells account for 43.76% of groundwater production.

Overall, production from the Edwards BFZ aquifer accounts for 36.41% of total groundwater used in Bell County and the Trinity aquifer accounts for 20.64% of total groundwater used in Bell County.

Modeled Available Groundwater - Analysis of Permits and Exempt Use Reserves (in acre feet)

Aquifer	MAG Modeled *	Reserved for Exempt	Managed	HEU Permit	Operating Permit	Remaining MAG
Edwards (BFZ)	6,469	825	5,644	2,209.70	300.77	3,133.53
Trinity	9,266	1,419	7,847	1,502.60	2,996.61	3,350.10
Paluxy	0			0	0	0
Glen Rose (Upper)	974	693	281	61.90	70.15	148.95
Hensell (Middle)	1,099	548	551	259.30	210.38	81.32
Hosston (Lower)	7,193	178	7,015	1,181.40	2,716.08	3,117.52

** The Modeled Available Groundwater (MAG) is the estimated amount of water available for permitting assigned to Clearwater UWCD by the Executive Administrator of TWDB.*

See Appendix F for the 2019 Edwards and Trinity Aquifer Status Reports

4. Annual Newsletter

Objective: Each year, the District will disseminate educational information on groundwater through publication of a District newsletter.

Objective Satisfied

Annually, the District publishes a newsletter and mails it to registered well owners in Bell County. In 2019 the total number of newsletters printed were 3,300 with 3,154 copies directly mailed to well owners. The others are handed out to people that come into the office and electronic copies are emailed out to permit holders and other interested parties.

See Appendix G for Annual Newsletter.
Online: http://www.cuwcd.org/district-overview/district-newsletter/

B. Controlling and Preventing Waste of Groundwater

Outreach and Education

Objective: Each year, the District will disseminate educational information on controlling and preventing the waste of groundwater focusing on water quality protection through at least one classroom or public presentation.

Objective Satisfied

District staff is available to speak to any group within our geographical boundaries. In 2018, District staff reached over 2,493 adults and children in Bell County directly through giving presentations and making contact at event booths. We often give power point presentations to adult groups explaining the District and how we function along with covering important water topics like conservation and watershed management.

In the classroom, we provide the Major Rivers curriculum and give supporting presentations with an Enviroscape watershed model and rainfall simulator. We make sure to always have handouts for the kids like color changing pencils, rulers and cups that change color when cold water is poured in. All handouts are branded with district information and most items have water conservation tips printed on them.

See Appendix H for Education and Outreach Events.

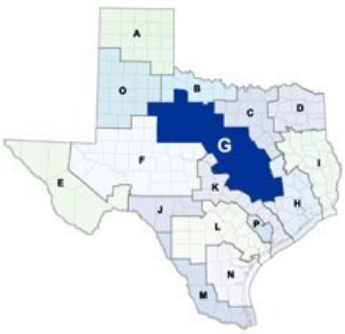
C. Addressing Conjunctive Surface Water Management Issues

Regional and Joint Planning Process Participation

Objective: Each year, the District will participate in the regional planning process by attending a minimum of two meetings of the Brazos G Regional Water Planning Group per fiscal year.

Objective Satisfied

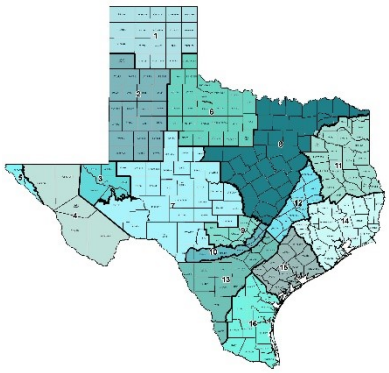
During FY19, District General Manager Dirk Aaron attended the scheduled meetings listed below. Dirk Aaron was also elected by the GMA8 Membership to represent the Groundwater Management Area as an appointed member of Region G. Dirk also serves on the Brazos G Scope of Work Committee.



March 20, 2019	Attended	July 10, 2019	Attended
May 22, 2019	Attended	September 25, 2019	Attended

Online: http://www.brazosgwater.org/

In addition to the regional planning group, District General Manager Dirk Aaron and Director Gary Young also attended the meetings for Groundwater Management Area 8. Groundwater Management Areas were created in order to provide for the conservation, preservation, protection, recharging, and prevention of waste of the groundwater, and of groundwater reservoirs or their subdivisions, and to control subsidence caused by withdrawal of water from those groundwater reservoirs or their subdivisions, consistent with the objectives of Section 59, Article XVI, Texas Constitution.



November 30, 2018	Attended	July 26, 2019	Attended
May 6, 2019	Attended		

Online: http://www.gma8.org

D. Addressing Natural Resource Issues Which Impact the Use and Availability of Groundwater, and which are impacted by the Use of Groundwater

Monitoring Water Quality

Objective: Each year the District will monitor water quality within the District by obtaining water samples from wells and testing the water quality of at least 6 wells.

Objective Satisfied

The District has an in-house water quality lab and offers a free screening service to registered well owners. Testing parameters include coliform bacteria; alkalinity; conductivity / total dissolved solids; fluoride; hardness; nitrate; nitrite; pH; phosphate; and sulfate. During FY19, the staff conducted screening on 75 groundwater samples. 28 samples tested were from the Edwards (BFZ) aquifer, 3 samples from the Upper Trinity, 31 samples from the Middle Trinity, 6 samples from the Lower Trinity, and 7 samples from other formations.

The District's lab is intended to provide a general water quality screening only. When a certified test is needed, the District sends properly collected well samples to BioChem located in West, Texas. During FY19, no samples were sent out for certified testing.

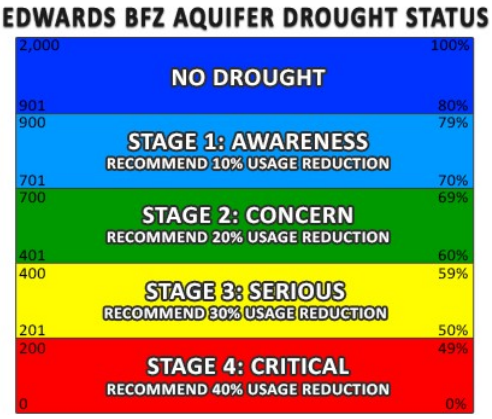
A summary of the well screening results are shown in Appendix I.

E. Addressing Drought Conditions

The District's Management Plan requires that the General Manager, Staff and Board of Directors review the District's drought status on a monthly basis. The decisions to declare drought levels per the District's Drought Management Plan approved December 17, 2009, are reviewed weekly by the General Manager. The Drought Management plans are designed to reflect conditions of the Trinity

and Edwards (BFZ) Aquifers independently of each other based on the specified triggers (PDI and/or Spring Flow).

1. Monitor Drought Conditions in the Edwards Aquifer



Objective: Each year, the District will monitor drought conditions in the Edwards aquifer through the process established in the drought management plan for the Edwards aquifer adopted by the Board of Directors.

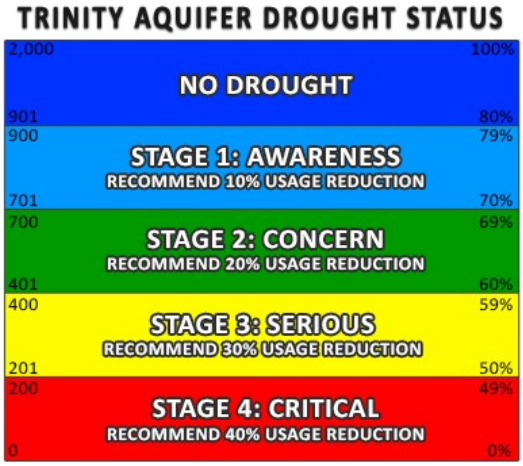
Objective Satisfied

Under the Edwards BFZ Drought Management Plan, a drought stage is triggered when either the Precipitation Deficit Index (PDI) is less than a drought state trigger condition exceeding for a period of 28 consecutive days and shall be reduced or terminated when the PDI is greater than the trigger condition exceeding for a period of 42 consecutive days, or the average spring discharge measured via stream flow gauges in Salado Creek fall below the trigger level for the periods described time.
Online: http://www.cuwcd.org/regulatory-program/drought-management/edwards-drought-management-plan/

Below are the declared stages during the fiscal year.

Date	Declared Drought Stage	Salado Creek Acre ft/Month	Salado Creek CFS	PDI Total	PDI % Total
10/9/2018	Stage 3 Drought	2,010.05	33.78	28.07	85.06
11/11/2018	No Drought	7,420.17	124.7	34.76	105.32
12/10/2018	No Drought	40,543.78	681.36	36.45	110.46
1/7/2019	No Drought	124,661.31	2,095.00	39.89	120.89
2/11/2019	No Drought	4,352.14	73.14	40.8	123.64
3/12/2019	No Drought	3,123.97	52.5	39.27	119.01
4/7/2019	No Drought	9,667.05	162.46	37.05	112.26
5/6/2019	No Drought	304,801.97	5,122.36	45.35	137.41
6/9/2019	No Drought	4,560.4	76.64	46.15	139.87
7/1/2019	No Drought	4,037.96	112.00	50.12	151.88
8/12/2019	No Drought	1,824.40	30.66	48.36	146.63
9/4/2019	No Drought	1,185.32	19.92	46.71	141.53

2. Monitor Drought Conditions in the Trinity Aquifer



Objective: Each year, the District will monitor drought conditions in the Trinity aquifer through the process established in the drought management plan for the Trinity aquifer adopted by the Board of Directors.

Objective Satisfied

Under the Trinity Aquifer Drought Management Plan, a drought stage is only to be triggered when the Precipitation Deficit Index (PDI) is less than a drought state trigger condition exceeding for a period of 28 consecutive days and shall be reduced or terminated when the PDI is greater than the trigger condition exceeding for a period of 42 consecutive days. *Online:* http://www.cuwcd.org/regulatory-program/drought-management/edwards-drought-management-plan/

Below are the declared stages during the fiscal year.

Date	Declared Drought Stage	PDI Total	PDI % Total
10/8/2018	Stage 1 Drought	26.31	79.71
11/11/2018	No Drought	35.09	106.32
12/10/2018	No Drought	37.43	113.43
1/7/2019	No Drought	40.74	123.45
2/11/2019	No Drought	41.19	124.81
3/12/2019	No Drought	39.22	118.86
4/7/2019	No Drought	36.34	110.10
5/6/2019	No Drought	44.59	135.13
6/9/2019	No Drought	46.1	139.7
7/1/2019	No Drought	50.69	153.61
8/12/2019	No Drought	48.38	146.63
9/4/2019	No Drought	48.27	146.26

F. Addressing Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, and Brush Control, Where Appropriate and Cost-Effective

1. Conservation

Objective: Each year, the District will promote conservation by conducting an annual scholastic contest on water conservation or; distributing conservation brochures/literature to the public.

Objective Satisfied

The District's Management Plan requires promotion of conservation by one outreach method/activity. During 2018, the District exceeded this requirement by aggressive outreach through classroom presentations, District's website, and other public presentations such as the annual Water Symposium. District staff reached over 2,493 adults and children in Bell County directly through giving presentations and making contact at event booths where conservation materials were both discussed and handed out.

See Appendix H for Education and Outreach Events.

2. Rainwater Harvesting

Objective: Each year, the District will promote rainwater harvesting by posting information on rainwater harvesting on the District web site.

Objective Satisfied

The District's Management Plan requires promotion of rainwater harvesting by posting information on the District website. The District satisfied this requirement by including a segment on rainwater harvesting on its website under the Education menu tab along with a link to the Texas A&M AgriLife Extension website and their Rainwater Harvesting Manual. Also included are links to Rainwater Harvesting Contacts and Suppliers and to the Texas A&M AgriLife Extension manual on Rainwater Harvesting Landscape Methods. The District's office has a rainwater harvesting setup for demonstration purposes.

http://www.cuwcd.org/education/rainwater-harvesting/

A copy of the posted information is included under Appendix J.

3. Brush Control

Objective: Each year, the District will provide information relating to brush control on the District web site.

Objective Satisfied

The District's Management Plan requires promotion of conservation by providing information relating to brush control on the District website. The District satisfied this requirement by including

a segment on brush control on its website under the Education menu tab. For additional information on brush control, links to the Texas A&M AgriLife Extension website are provided. Also included is a link to the Brush Management Fact Sheet produced by Environmental Defense.

http://www.cuwcd.org/education/brush-control/

A copy of the posted information is included under Appendix K.

4. Recharge Enhancement

Objective: Each year, the District will provide information relating to recharge enhancement on the District web site.

Objective Satisfied

The District's Management Plan requires promotion of conservation by providing information relating to recharge enhancement, and the District satisfied this requirement by including a segment on recharge enhancement on its website under the Education menu tab. For additional information on recharge enhancement, links to the Texas State Soil and Water Conservation website, and the Leon River Restoration Project website are provided. In addition, the District has contracted with Baylor University to help gain a better scientific understanding of the Edwards (BFZ) and its recharge zone.

http://www.cuwcd.org/education/recharge-enhancement/

A copy of the posted information is included under Appendix L.

G. Addressing in a Quantitative Manner the Desired Future Conditions of the Groundwater Resources

1. Salado Springs

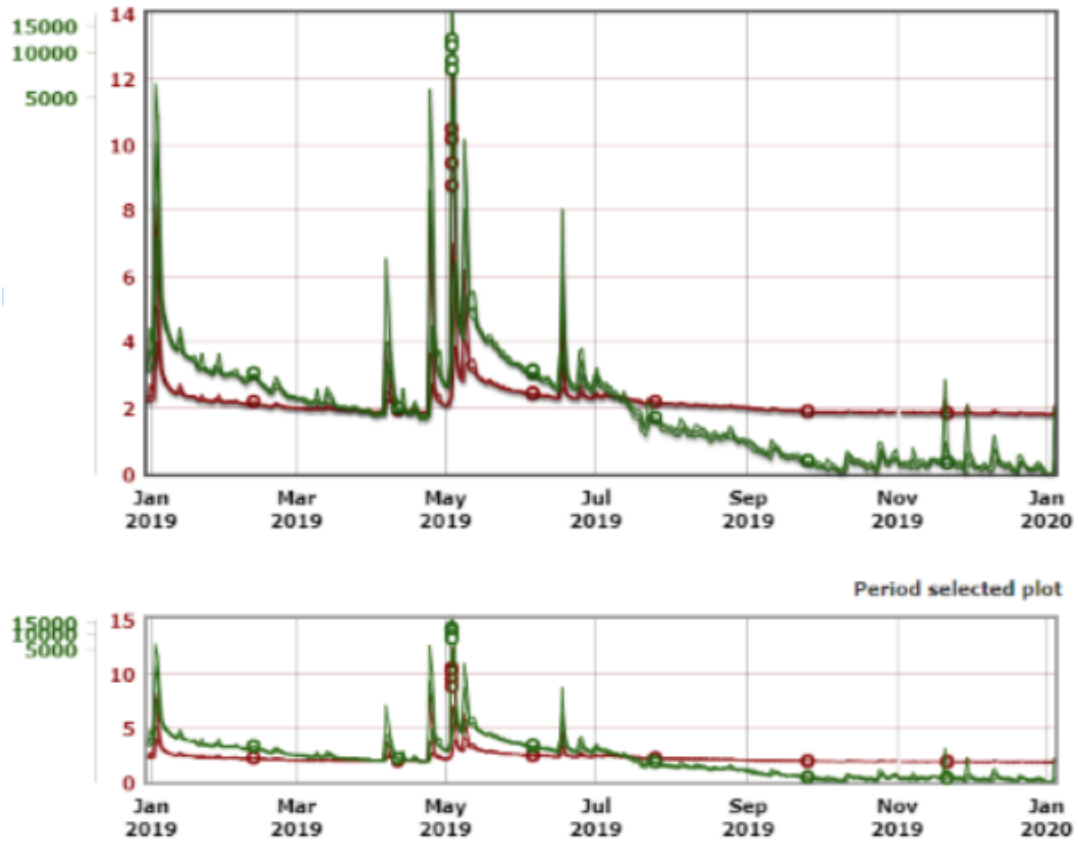
Objective: Each year, the District will include a summary of the monthly average discharge rate of Salado Springs and a discussion of the conservation measures implemented (if any are necessary) to avoid impairment of the Desired Future Conditions for the Edwards aquifer established by GMA-8, in the Annual Report to the Board of Directors.

Objective Satisfied

The gauges in the Salado Creek have been an important mechanism to protect spring flow. The District began collecting data from the Salado Creek stream flow gauges during FY08 with the assistance of multiple contractors. During the spring of 2013 an upgraded gauge package by the USGS Water Science Group was installed and the process of analyzing the data and recalibrating the system began. This process was lengthy, but essential to ensure accuracy of the data collected. The new gauges and relationship with the USGS have proved to be an important step forward in monitoring spring flow. The live data can be found online on our website: http://www.cuwcd.org/salado-springs/salado-creek-gauges/

Below is a screen shot of the spring flow data for the calendar year 2019.

Salado Creek – USGS 08104300



Gage height, feet

Discharge, cubic feet per second

2. (a) Static Water Level Measurements

Objective: Each year, the District will collect at least 5 water-level measurements from the Trinity aquifer monitor wells located in the District.

Objective Satisfied

The Texas Water Development Board (TWDB) typically measures water levels in selected wells in January each year. Clearwater measures water levels in selected wells four times annually to collect more comprehensive data on water levels in Bell County.

Comparing the water level measurements taken by the District with those taken by the TWDB is sometimes difficult due to differences in measurement procedures and equipment. Clearwater primarily uses a Sonic Wave Meter and only utilizes an e-line if necessary. Large producers are asked to turn the pump off at least one hour prior to the measurement to allow the aquifer levels

time to stabilize. TWDB typically uses a steel tape or an airline and does not request the pump to be turned off. During calendar year 2019, the District took 11 water level measurements from 50 wells.

The District has been increasing continuous monitor well locations throughout Bell County, thus some wells have very little historical information. Adding these wells is essential to have a broader spectrum of data to analyze in future years. The District has 13 continuous monitor wells that are monitored by TWDB. The continuous water level measurements can be viewed on TWDB's website at: https://waterdatafortexas.org/groundwater.

A copy of the measurements is included under Appendix M.

2. (b) Changes in Water Levels

Objective: Each year, the Annual Report to the Board of Directors will include a discussion of the change in water-levels in each Trinity aquifer subdivision for which a Desired Future Condition is established by GMA-8.

Objective Satisfied

The District prepares a monthly status report (Appendix F – Trinity Aquifer Status Report 2019) that explains the status of the Trinity aquifers by layer at any given time. The DFC analysis from 2000 to present compares DFC adopted drawdown to actual drawdown figures for Bell County. In addition, potential production from both permitted wells and exempt wells is compared to MAG with figures showing how much actual water is available for permitting.

5. Miscellaneous Activities

In addition to the Management Plan requirements, Clearwater is involved in several miscellaneous activities as follows:

A. Abandoned Wells

The District continues to coordinate with the Texas Department of Licensing and Regulation (TDLR) to identify and investigate reports of abandoned wells. After initial investigation, staff refers abandoned wells to TDLR for further investigation, determination of corrective action, and enforcement. The District did not refer any abandoned wells to TDLR during the calendar year 2019.

The District continues to work with the Bell County Public Health District for assistance in locating abandoned wells when septic systems are inspected. The District promotes the plugging of abandoned wells by distributing educational information at various conferences and events and hosting well plugging demonstrations with the Texas A&M AgriLife Extension.

According to records from the Texas Department of Licensing and Regulation, during 2019 a total of 17 wells were plugged in Bell County.

B. Bell County Water Symposium

Clearwater sponsored its eighteenth annual water symposium on November 6, 2019 at the Texas A&M University - Central Texas Campus. Event partners included Bell County Engineer's Office, HALFF Associates, KPA Engineers, LRE Water LLC, Lloyd Gosselink Attorneys at Law, WSP and Texas A&M AgriLife Extension-Bell County.

Topics that were discussed:

- *State of the District "Successes, Concerns and* Actions – Dirk Aaron, General Manager, Clearwater UWCD
- *Whisky's for Drinkin', Water's for Fightin': The Tumultuous History and Collaborative Future of Water Management Texas.* – Dr. Robert Mace, Interim Executive Director & Chief Water Policy Officer, Texas State University
- *Texas Water Development Board Update: Science, Infrastructure & Support*
  John Dupnik, Deputy Executive Administrator, Office of Water Science and Conservation, Texas Water Development Board
- *Bell County Challenges and Prospects for the* Future – Honorable David Blackburn, Bell County Judge
- *Bell County Legislative* Panel - Moderator: Leah Martinsson, Executive Director, TAGD, Senator Dawn Buckingham, District 24, Representative Brad Buckley, District 54, Representative Hugh Shine, District 55
- *Keynote Address* – Representative Lyle Larson, District 122, Chairman of the House Natural Resource Committee
- *Caring, Collaboration and Outreach for the Future – Hill Country Alliance* – Charlie Flatten, Water Policy Program Manager, Hill Country Alliance
- *State of the Brazos River Basin and BRA* – Tiffany Malzahn, Environmental and Compliance Manager, Brazos River Authority
- *Groundwater Science for Sound Policy* – Dr. Joe Yelderman, P.G., Professor of Geology, Baylor University
- *GCD Case Study of Management and Policy* – Doug Shaw, General Manager, Upper Trinity GCD, Dirk Aaron, General Manager, Clearwater UWCD

The District set up a display booth and distributed water conservation packets as well as other information on water quality protection and information on the aquifers in Bell County. Approximately 157 people attended the symposium.

Refer to Appendix N for an agenda of the meeting.
Online: http://www.cuwcd.org/education/annual-water-symposium/

C. Internet Site

The District's web site continues to grow on a monthly basis. The web site contains general information about the District and Board of Directors along with a calendar of events and meeting agendas. Press releases and other water related articles are posted to continually provide water related resources to the residents of Bell County.

Below are some highlights of the website available to the public:

- Current Drought Status
- Access to online GIS Maps
- Educational Resources
- Link to TWDB Groundwater Levels

- Texas Drought Monitor
- Salado Creek Gauges
- District Rules
- Management Plan
- Link to TWDB Texas Reservoir Levels
- Public Records
- District Forms and Documents

The website can be viewed at http://www.cuwcd.org

6. Summary

Based on the leadership of the Board of Directors and management under the executive direction of the General Manager, District staff continued expanding their efforts in developing in-depth aquifer science, enhancing educational outreach to public schools and civic organizations, and refining data base management for the District records.

The District staff has expanded the educational efforts in a partnership with Texas A&M AgriLife Extension, Master Naturalist, and Master Gardener programs. Strategies include: an education trailer (mobile classroom), classroom curriculum, science day events, field days, Earth Day events, and informative presentations for civic organizations.

Clearwater UWCD has maintained the relationships with Bell County, the Village of Salado, USGS, and Baylor University to continue efforts to better understand the Edwards BFZ Aquifer and its complex of springs and recharge features. Knowing that the Salado Salamander is designated as threatened by USFWS, validated the continued need to better understand the habitat and identified threats. Maintaining the regulatory system of protecting the spring flow has been validated by the USFWS decision to list the salamander as threatened rather than endangered. The 2015, 2016 and 2017 final reports from USFWS can be found on our website at http://www.cuwcd.org/salado-springs/salado-salamander/.

The District is also committed to continuing our efforts to enhance the network of monitor wells in the three layers of the Trinity Aquifer in order to measure drawdown relative to pumping. This allows the Board of Directors to manage the aquifers to the DFC rather than simply to the MAG. The District continues to monitor over 50 wells in both the Trinity and Edwards (BFZ) Aquifers.

Appendix A

Clearwater Underground Water Conservation District
Adopted Budget FY2019

REVENUE	
Application Fee Income	30,000.00
Bell CAD Current Year Tax	716,271.00
Bell CAD Deliquent Tax	7,500.00
Interest Income	5,000.00
Transport Fee Income	1,000.00
Total Income	**759,771.00**
Gross Profit	759,771.00
EXPENDITURES	
Administrative Expenses	
Audit	7,000.00
Conferences & Prof Development	4,000.00
Contingency Fund	13,003.00
Director Expenses	7,500.00
Director Fees	12,750.00
Dues & Memberships	2,750.00
Election Expense	500.00
GMA 8 Expenses	10,000.00
Meals	1,000.00
Mileage Reimbursements	5,000.00
Travel & Hotel	4,500.00
Total - Administrative Expenses	**68,003.00**
Salary Costs	
Administrative Assistant	46,986.00
Educational Coord/Support Tech	40,000.00
Manager	80,237.00
Office Assistant/Field Tech	36,050.00
Health Insurance	41,274.00
Payroll Taxes & Work Comp	20,000.00
Retirement	9,148.00
Payroll Expenses	125.00
Total - Salary Costs	**273,820.00**
Operating Expenses	
Advertisement	3,500.00
Appraisal District	8,000.00
Clearwater Studies	167,383.00
Spring Flow Gage System	15,900.00
Computer Consulting	24,250.00
Computer Licenses/Virus Prtctn	1,500.00
Computer Repairs and Supplies	3,000.00
Computer Software & Hardware	7,500.00
Copier/Scanner/Plotter	6,000.00
Educational Outreach/Marketing	22,500.00
Furniture & Equipment	1,500.00
Legal	63,000.00
Office Supplies	3,000.00
Permit Reviews	30,000.00
Postage	2,500.00
Printing	2,500.00
Reserve for Uncollected Taxes	20,000.00
Subscriptions	900.00
Mobile Classroom Expense	1,500.00
Vehicle Expense	4,000.00
Total · Operating Expenses	**388,433.00**
Total · Facility Costs	**20,915.00**
Total · Utilities	**8,600.00**
Total Expenditures	**759,771.00**

For a detailed copy of the FY19 Budget, please contact CUWCD at 254-933-0120

8/23/2018

RESOLUTION AND ORDER
OF THE BOARD OF DIRECTORS OF THE CLEARWATER
UNDERGROUND WATER CONSERVATION DISTRICT
MEETING HELD AUGUST 22, 2018

THE STATE OF TEXAS	§	
	§	**A RESOLUTION AND ORDER**
COUNTY OF BELL	§	
	§	**SETTING ANNUAL TAX RATE**
CLEARWATER UWCD	§	

The Board of Directors of the Clearwater Underground Water Conservation District met in a regular session, open to the public, after due notice, at the Clearwater Underground Water Conservation District, located at 700 Kennedy Court, Belton, Texas, within the boundaries of the District, on the 22nd day of August 2018, whereupon the roll was called of the members of the Board of Directors, to wit:

Leland Gersbach	President
Wallace Biskup	Vice President (absent)
Judy Parker	Secretary
C. Gary Young	Director
David Cole	Director

Four (4) of the five (5) Board members were present, thus constituting a quorum.

WHEREUPON, among other business conducted by the Board, Director Judy Parker introduced the Order set out below and moved for its adoption, which motion was seconded by Director David Cole and, after full discussion and the question being put to the Board of Directors, said motion was carried by the following vote:

"Aye": 4 ;"No": 0; "Abstained": 0; "Absent": 1 .

The Order thus adopted is as follows:

WHEREAS, the Board of Directors was authorized by applicable statutory law to levy a sufficient tax to cover all maintenance and operation expenses of the District;

WHEREAS, the Board of Directors reviewed and approved its budget for its fiscal year October 1, 2018, through September 30, 2019, and determined what tax rate should be set to meet such budget requirements;

WHEREAS, the appraisal roll of the District for 2018 has been prepared and certified by the Tax Appraisal District of Bell County and submitted to the District's tax collector; and

NOW, THEREFORE, BE IT ORDERED BY THE BOARD OF DIRECTORS OF THE CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT THAT:

I.

The operation and maintenance tax rate for tax year 2018 shall be $0.00383 per one hundred dollars ($100) of assessed valuation. Be it known that this 2018 tax rate is the less than last year's $0.00385 per $100 of assessed valuation, but this rate will increase total taxes in Clearwater by 2.51%, or $0.14 on the average appraised value of a residence at $152,316.

THIS TAX RATE WILL RAISE MORE TAXES FOR MAINTENANCE AND OPERATIONS THAN LAST YEAR'S TAX RATE. THIS TAX RATE WILL NOT REDUCE TAXES FOR MAINTENANCE AND OPERATIONS ON A $100,000 HOME.

The Bell County Tax Assessor and Collector shall take all steps necessary and authorized by the law to collect taxes as owed pursuant to this order. Said taxes shall be levied, assessed and collected at the rate of $0.00383 per $100 valuation for 2018 as provided for in the District's enabling act; Chapters 36 Texas Groundwater Water Code, as applicable; and all other applicable laws.

II.

The Board President or Vice President are authorized to execute, and the Secretary or any Assistant Secretary to attest, this order on behalf of the Board of Directors.

PASSED, APPROVED AND ADOPTED this the 22rd day of August, 2018.

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

By: Leland Gersbach

Leland Gersbach, Board President (or)
Wallace Biskup, Board Vice President

ATTEST:

Judy Parker

Judy Parker, Board Secretary (or)
Dirk Aaron, Assistant Secretary

Appendix B

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

COMMUNICATIONS WITH THOSE CHARGED WITH GOVERNANCE

SEPTEMBER 30, 2019

ALTON D. THIELE, P.C.
CERTIFIED PUBLIC ACCOUNTANT
300 E. AVENUE C
P.O. BOX 808
BELTON, TX 76513-0808

ALTON D. THIELE, P.C.

Certified Public Accountant
300 East Avenue C
P. O. Box 808
Belton, Texas 76513-0808

February 6, 2020

To the Board of Directors
Clearwater Underground Water Conservation District
700 Kennedy Ct.
PO Box 1989
Belton, TX 76513

We have audited the basic financial statements of Clearwater Underground Water Conservation District (the District) as of and for the year ended September 30, 2019. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter dated August 19, 2019. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings
Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Clearwater Underground Water Conservation District are described in NOTE 1 to the financial statements. The application of existing policies was not changed during the fiscal year ended September 30, 2019. We noted no transactions entered into by the District during the year for which there is a lack of authoritative guidance or consensus. All significant transactions, that we are aware of, have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The two most sensitive estimates affecting the financial statements were:

> Management's estimate of the useful lives of its capital assets is significant due to the very nature of determining how long an item might last. We evaluated the key factors and assumptions used to develop these estimates in determining that it is reasonable in relation to the financial statements taken as a whole.
>
> Management's estimate of the budget of the District is significant due to the changing needs of the district and the changing property tax base within the District boundaries. We evaluated the key factors and assumptions used to develop these estimates in determining their reasonableness in relation to the financial statements taken as a whole.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to the financial statements taken as a whole.

Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a financial accounting, reporting or auditing matter, whether or not resolved to our satisfaction that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the Management Representation Letter dated February 6, 2020.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the District's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the District's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition of retention.

Other Matters

With respect to the supplementary information accompanying the financial statements, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

This information is intended solely for the use of the Board of Directors and Management of Clearwater Underground Water Conservation District and is not intended to be, and should not be, used by anyone other than these specified parties.

Very truly yours,

Alton D. Thiele, P.C.
Belton, TX

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

BASIC FINANCIAL STATEMENTS AND INDEPENDENT AUDITORS' REPORT

SEPTEMBER 30, 2019

ALTON D. THIELE, P.C.
CERTIFIED PUBLIC ACCOUNTANT
300 E. AVENUE C
P.O. BOX 808
BELTON, TX 76513-0808

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
TABLE OF CONTENTS

ALTON D. THIELE, P.C.

CERTIFIED PUBLIC ACCOUNTANT
300 EAST AVENUE C
P.O. BOX 808
BELTON, TX 76513-0808

INDEPENDENT AUDITORS' REPORT

To the Board of Directors
Clearwater Underground Water Conservation District
Belton, Texas

We have audited the accompanying financial statements for the governmental activities and the aggregate remaining fund information of the Clearwater Underground Water Conservation District (the District), as of and for the year ended September 30, 2019, which collectively comprise the District's basic financial statements as listed in the table of contents, and the related notes to the financial statements.

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 an opinion 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 Standards*, 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 of 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 entity'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 reasonable basis for our opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the governmental activities and the aggregate remaining fund information of Clearwater Underground Water Conservation District, as of September 30, 2019, and the respective changes in fund balances in conformity with accounting principles generally accepted in the United States of America.

Report Issued In Accordance with *Government Auditing Standards*

In accordance with *Government Auditing Standards,* we have also issued our report dated February 6, 2020, on our consideration of the District's internal control over financial reporting (internal control) and on our tests of its compliance with certain provisions of laws, regulations, contracts, and other matters. The purpose of that report is 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 internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

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 3 through 5 and budgetary comparison information on page 16 be presented to supplement the financial statements. Such information, although not a required part of the basic financial statements, is required by the Governmental Accounting Standards Board (GASB), 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 an opinion on the financial statements that collectively comprise the District's basic financial statements. The Texas Supplementary Information, on pages 18 through 21, is presented for purposes of additional analysis and is not a required part of the basic financial statements of the District. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly presented in all material respects, in relation to the basic financial statements taken as a whole.

Belton, Texas
February 6, 2020

The management of the Clearwater Underground Water Conservation District (the District), offers readers of the District's annual financial report this narrative overview and analysis of the District's financial performance during the fiscal year ended September 30, 2019. This discussion and analysis is intended to be an easily readable analysis of the District's financial activities based on currently known facts, decisions, and conditions. Please read it in conjunction with the Independent Auditors' Report and the District's basic financial statements and the related notes.

FINANCIAL HIGHLIGHTS

The District's total net position,	$ 1,477,134
Cash and investments,	$ 872,639
Capital assets, net of accumulated depreciation	$ 592,189
Total tax revenues,	$ 697,850
Operational expenditures,	$ 613,054

OVERVIEW OF THE FINANCIAL STATEMENTS

This annual financial report consists of, but is not limited to, the following: Management's Discussion and Analysis (this section, which is intended to serve as an introduction to the basic financial statements), the basic financial statements, and the related notes to the financial statements. The District is a governmental entity and follows the accrual basis of fund accounting for a governmental entity. The District is funded primarily by property tax revenue from within the District's boundaries to provide a means by which underground water is controlled and monitored throughout the District.

REPORT LAYOUT

In addition to the Management's Discussion and Analysis (MD&A) (pages 3-5), the report consists of basic financial statements, notes to the financial statements, required supplementary information and supplementary information. The basic financial statements are highly condensed and present a government-wide view of the District's finances.

The *Government-wide Financial Statements* (pages 6–9) are designed to be more corporate-like in that all activities are consolidated into a total for the District. The *Statement of Net Position* presents information on all District assets and liabilities, with the difference between the two reported as net position. The *Statement of Activities* presents information about the District's revenues and expenses regardless of when cash is received or paid.

The Fund Financial Statements (presented in conjunction with Government-wide Financial Statements, pages 6-9) are a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The District, like other state and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. All funds of the District can be divided into two categories: governmental funds and proprietary funds. However, there were no proprietary funds. Fund financial statements, unlike government-wide financial statements, focus on near-term inflows and outflows of spendable resources, as well as on spendable resources available at the end of the fiscal year.

The *Notes to the Financial Statements* (pages 10-14) provide additional information that is essential to a full understanding of the data provided in the government-wide basic financial statements. Required and other supplemental information (pages 16-21) is also provided for additional information and analysis.

FINANCIAL ANALYSIS OF THE DISTRICT

Statement of Net Position: The following table summarizes the net position of the District

	2019	2018	Change
Assets			
Current Assets	$ 894,377	$ 781,851	$ 112,526
Capital Assets, net of accumulated depreciation	592,189	590,206	1,983
Total Assets	1,486,566	1,372,057	114,509
Liabilities			
Current Liabilities	9,432	8,493	939
Total Liabilities	9,432	8,493	939
Net Position			
Net Investment in Capital Assets	592,189	590,206	1,983
Unrestricted	884,945	752,964	131,981
Total Net Position	1,477,134	1,343,170	133,964
Prior Period Adjustment	-	20,394	(20,394)
Total Net Position, as adjusted	1,477,134	1,363,564	113,570
Total Liabilities, Deferred Inflows and Net Position	$ 1,486,566	$ 1,372,057	$ 114,509

Statement of Activities: The following table summarizes the changes in net position

	2019	2018	Change
Tax Revenue	$697,850	$692,683	$ 5,167
Interest and Other Revenues	28,774	22,269	6,505
Expenditures	(613,054)	(621,493)	8,439
Change in Net Position	$113,570	$ 93,459	$ 20,111

As shown in the above information, the District improved financially, overall with an increase in net position of $20,111. Operational expenditures were $613,054, which includes increases in legal costs and decreases in studies costs. Capital outlays of $35,066 were greater than depreciation of $33,082 which created an increase in net investment in capital assets of $1,984.

BUDGETARY HIGHLIGHTS

Actual tax revenues received were less than the budgeted tax revenues by $(19,366) or 3%. However, actual operational expenditures were 25% less than budgeted expenditures. This resulted in an increase in fund balance of $127,571. The budget was legally adopted according to established guidelines and the Board of Directors legally adopted amendments to individual budget items during the fiscal year. (See page 16 for details)

CAPITAL ASSETS

During the year, capital expenditures were made, so that at September 30, 2019, the District had a net increase in Capital Assets of $1,984. The Net Investment in Capital Assets, net of depreciation and related debt, at fiscal year-end was $592,189.

Additional information regarding Capital Assets can be found in the notes to the financial statements. (Note-3, page 13)

DEBT OUTSTANDING

The District had no long-term debt as of the fiscal year ended September 30, 2019.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

The District's property tax rate for the 2019/2020 fiscal year (FY19-20) was lowered to $0.00357 per $100 valuation. The estimated taxable property value is $20,574,201,681 for total expected tax revenue of $734,499. Other Income and delinquent property taxes is estimated at $59,000. The District's budgeted expenditures for FY 19-20 are expected to be $820,613 and with the addition of $27,114 in reserve funds, will result in a balanced budget for the coming fiscal year.

FINANCIAL CONTACT

The District's financial statements are designed to present users (citizens, taxpayers, creditors, and regulatory agencies) with a general overview of the District's finances and to demonstrate the District's accountability. If you have questions about the report or need additional financial information, please contact the District Manager at 700 Kennedy Ct., PO Box 1989, Belton, TX 76513.

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
STATEMENT OF NET POSITION AND BALANCE SHEET - GOVERNMENTAL FUNDS

SEPTEMBER 30, 2019

	General Fund	Total	Adjustments	Statement of Net Position
ASSETS				
Cash in Banks	$ 11,060	$ 11,060	$ -	$ 11,060
Invested Funds	861,579	861,579	-	861,579
Receivables:				
Taxes	21,738	21,738	-	21,738
Capital Assets Not Being Depreciated:				
Land	-	-	59,981	59,981
Capital Assets (net of accumulated depreciation):				
Infrastructure	-	-	532,208	532,208
Total Assets	$ 894,377	$ 894,377	$ 592,189	$ 1,486,566
LIABILITIES				
Liabilities				
Current and Non-current	$ 2	$ 2	$ 9,430	$ 9,432
Total Liabilities	2	2	9,430	9,432
DEFERRED INFLOWS OF RESOURCES				
Property Tax Revenue	21,738	21,738	(21,738)	-
FUND BALANCE				
Fund Balances				
Unassigned	872,637	872,637	(872,637)	-
Total Fund Balance	872,637	872,637	(872,637)	-
Total Liabilities, Deferred Inflows of Resources and Fund Balance	$ 894,377	$ 894,377		
NET POSITION				
Net Investment in Capital Assets			592,189	592,189
Unreserved			884,945	884,945
Total Net Position			$ 1,477,134	$ 1,477,134

The accompanying notes are an integral part of these financial statements.
See Independent Auditors' Report.

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
RECONCILIATION OF THE BALANCE SHEET - GOVERNMENTAL FUNDS TO THE STATEMENT OF NET POSITION
SEPTEMBER 30, 2019

Total Fund Balances for Governmental Funds (Page 6)		$ 872,637
Total Net Position Reported for Governmental Activities in the Statement of Net Position is Different Because:		
Capital assets used in governmental acitivites are not financial resources and therefore are not reported in the funds. Those assets consist of:		
Land	59,981	
Buildings, Equipment and Infrastructure	709,480	
Accumulated Depreciation	(177,272)	
Net Capital Assets		592,189
Some revenues in the governmental fund are deferred because they are not collected within the prescribed time period after year-end. On the accrual basis, however, those revenues would be recognized, regardless of when they are collected.		21,738
Some assets and liabiltiies are not considered resources available or due in the current period and therefore are not reported in the governmental fund. These consist of		
Compensated Absences		(9,430)
Total Net Position of Governmental Activities (Page 6)		$ 1,477,134

The accompanying notes are an integral part of these financial statements.
See Independent Auditors' Report.

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
STATEMENT OF ACTIVITIES AND REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE - GOVERNMENTAL FUNDS AND NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2019

	General Fund	Total	Adjustments	Statement of Activities
EXPENDITURES				
Operations				
Director Fees	$ 7,800	$ 7,800	$ -	$ 7,800
Administrative	32,020	32,020	-	32,020
Compensation and Benefits	268,010	268,010	9,430	277,440
Depreciation	-	-	33,082	33,082
Facilities Costs	19,579	19,579	(3,935)	15,644
Clearwater Studies	101,436	101,436	(31,131)	70,305
Educational Outreach/Marketing	13,252	13,252	-	13,252
Spring Flow Gage System	18,400	18,400	-	18,400
Legal and Professional	52,762	52,762	-	52,762
Utilities	7,927	7,927	-	7,927
Other Operating Expenditures	84,422	84,422	-	84,422
Total Expenditures	605,608	605,608	7,446	613,054
REVENUES				
General Revenues				
Property Taxes	704,405	704,405	(6,555)	697,850
Permits, Licenses, and Other Fees	3,426	3,426	-	3,426
Interest and Other Income	25,348	25,348	-	25,348
Total Revenues	733,179	733,179	(6,555)	726,624
Excess (Deficiency) of Revenues over Expenditures	127,571	127,571	(14,001)	113,570
Change in Fund Balance/Net Position	127,571	127,571	(14,001)	113,570
FUND BALANCE/NET POSITION				
Beginning of Year	745,066	745,066	618,498	1,363,564
End of Year	$ 872,637	$ 872,637	$ 604,497	$ 1,477,134

The accompanying notes are an integral part of these financial statements.
See Independent Auditors' Report.

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
RECONCILIATION OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE - GOVERNMENTAL FUNDS AND NET POSITION TO THE STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED SEPTEMBER 30, 2019

Net Change in Fund Balance - Total Governmental Funds (Page 8)		$ 127,571
The Change in Net Position Reported for Governmental Activities in the Statement of Activities is Different Because:		
Governmental funds report capital outlays as expenditures. In the Statement of Activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense.		
Capital assets reported as capital outlay in governmental fund statements:	35,066	
Depreciation expense reported in statement of activities:	(33,082)	
Amount by which capital outlays are greater (less) than depreciation in current period.		1,984
Revenues in the statement of activities that do not provide current financial resources are not reported as revenue in the funds. This amount represents the net change in deferred inflows of resorces from the previous period.		(6,555)
Compensated absences are not a current requirement of resources and therefore are not accrued in the general fund.		(9,430)
Change in Net Position of Governmental Activities (Page 8)		$ 113,570

The accompanying notes are an integral part of these financial statements.
See Independent Auditors' Report.

NOTE 1 – SIGNIFICANT ACCOUNTING POLICIES AND BASIS OF ACCOUNTING

The basic financial statements of Clearwater Underground Water Conservation District (the District) have been prepared in conformity with accounting principles generally accepted in the United States of America (US GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the acceptable standard-setting body for establishing governmental accounting and financial reporting principles. The significant accounting principles and policies utilized by the District are described below:

A. Reporting Entity

The District was created in 1989 by resolution of the Commissioners Court of Bell County, Texas, pursuant to H.B. 3172, Chapter 524, Acts of the 71st Legislature (1989 Session) (the "Act"). The District is a governmental agency and a body politic and corporate, created by and acting pursuant to the Act as amended by S.B. 404, Chapter 22, Act of the 77th Legislature (2001 Session), S.B. 1755, Chapter 64, Act of the 81st Legislature (2009 Session), and by applicable law including the provisions of Chapters 36 and 49 of the *Texas Water Code*. A five-member group, which constitutes the Board of Directors, is the level of government which has responsibility over all related activities within the jurisdiction of the Clearwater Underground Water Conservation District. The District receives funding from local property taxes; certain well, pump, and transmission fees; and interest resulting from investments of excess funds.

The District is not included in any other governmental reporting entity. The taxpayers within the jurisdiction of the District elect the Board members. The Directors have decision-making authority, the power to designate management, the responsibility of operations, and the primary accountability of fiscal and fiduciary matters.

B. Basis of Presentation

The accounts of the District are organized on the basis of funds and account groups, each of which is considered a separate accounting entity. Operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, fund balance, revenues, and expenditures, as appropriate. The government-wide financial statements report all the activities of the District. These activities are primarily supported by property taxes, license, registration, and other fees. The following are descriptions of the fund types and account groups used by the District.

1. Governmental funds

General Fund – All unrestricted financial resources except those required to be accounted for in another fund are recorded in the general fund. It is the District's general operating fund. Taxes and fees are the major sources of revenue. Expenditures include all costs associated with the daily operations of the District. There are no other governmental funds at this time.

2. Account groups

Capital Assets account group – All capital assets of the District are accounted for in this group. The account group is not a fund. It only measures financial position and is not involved with measurement of results of activities.

C. Measurement Focus and Basis of Accounting

The government–wide financial statements, statement of net position and statement of activities, are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are reported when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

Governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the District does not consider revenues collected after its year-end to be available in the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting. All other revenue items are considered measurable and available only when the District receives cash.

D. Assets, Liabilities, Deferred Outflows/Inflows of Resources, and Net Position or Fund Balance

1. Cash and Cash Equivalents

The District's cash and cash equivalents are considered to be cash on hand, demand deposits, and certificates of deposit.

2. Budgetary Data

The adoption of an annual budget, for the general fund, is required prior to the beginning of each fiscal year on a basis consistent with accounting principles generally accepted in the United States of America. Thirty to sixty days prior to the beginning of each fiscal year, District management will submit a proposed budget for the fiscal year beginning on the following October 1st. The operating budget includes proposed expenditures and the means of financing them. The Board of Directors will adopt the budget by appropriate board action. Any revisions that alter the original budget must also be considered and approved by board action. The District is required to present the adopted and final amended budgeted revenues and expenditures for the General Fund. The District compares the final amended budget to actual revenues and expenditures. This is found on page 16.

3. Accounts Receivable

Accounts receivable are recorded at gross amount with uncollectable amounts recognized under the direct write-off method. No allowance for uncollectible accounts has been provided since it is believed that the amount of such allowance would not be material to the basic financial statements.

4. Capital Assets

Capital Assets have been acquired for general governmental purposes. Assets purchased or constructed are recorded as expenditures in the applicable governmental fund type and capitalized at historical cost in the Capital Asset account group. Contributed capital assets are recorded at estimated fair market value at the time received. Infrastructure assets are also included in the Capital Asset account group.

The full depreciation of the applicable capital assets is being recognized in compliance with the implementation of GASB Statement 34. Depreciation is calculated on the straight-line basis according to the following useful lives:

Building and Improvements	20 – 40 years
Office and Field Equipment	5 - 15 years

5. Deferred Outflows/Inflows of Resources

The District is compliant with GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position* and GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities.* In addition to assets, the statement of net position will sometimes report a section for deferred outflow of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expenditures) until then. The District currently does not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The District has one type of item that qualifies for reporting in this category; delinquent property taxes. The amount of this item is deferred and will be recognized as an inflow of resources in the period the amount is collected and remitted to the District.

6. **Equity Classifications**

In the government-wide financial statements, equity is shown as net position and classified into three components; Net Investment in Capital Assets, Restricted, and Unrestricted. The District uses two of these classifications.

a. *Net Investment in Capital Assets* – Capital Assets, net of accumulated depreciation and reduced by any outstanding debt that poses an encumbrance.

b. *Unrestricted* – All other assets that do not meet the definition of net investment in capital assets.

The District reports the governmental fund balance as, unassigned; not previously classed as:

Non-spendable – Amounts that cannot be spent because they are either not in a spendable form or, legally or contractually required to be maintained intact.

Restricted – Amounts with restrictions imposed externally by creditors, grantors, contributors, or laws or regulations of other governments, constitutional provisions or enabling legislation.

Committed – Amounts that can only be used for specific purposes and imposed by formal action of the board of directors.

Assigned – Amounts informally constrained by District management but not formally restricted by the board of directors.

7. **Risks, uncertainties, and use of estimates**
The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenditures during the reporting period. Actual results could differ from those estimates.

NOTE 2 – PROPERTY TAXES

Property taxes are levied October 1 on the assessed property value as of the prior January 1 for all real and business personal property located in the district in conformity with Subtitle E, Texas Property Tax Code. Taxes are due on receipt of the tax bill and are delinquent if not paid before February 1 of the year following the year in which imposed. On January 31 of each year, a tax lien attaches to property to secure the payment of all taxes, penalties, and interest ultimately imposed. The District's property taxes are billed and collected by the Tax Appraisal District of Bell County.

The net assessed value after adjustments, based on 100 percent of the assessed valuation of real and personal property within the District on the 2018 tax roll, was $18,670,513,065. The 2018 tax rate of $0.00383 per $100 valuation was assessed and allocated to the General Fund. The resulting tax levy was $715,109.

Deferred tax revenue is reported as deferred inflows of resources (Note 1.D.5 para 2) by the District on its Governmental Funds balance sheet under the General Fund and arises when potential revenue does not meet the "measurable" and "available" criteria for recognition in the current period. In subsequent periods, when both revenue recognition criteria are met, the liability for the deferred tax revenue is removed from the balance sheet and the revenue is recognized. The current Deferred Inflow of Resources is $21,738.

NOTE 3 – CHANGES IN CAPITAL ASSETS

A summary of changes in capital assets is as follows:

	Primary Government			
2019	Beginning investment	Increase	Retirements	Ending Investment
Capital Assets not Depreciated				
Land	$ 59,981	$ -	$ -	$ 59,981
Total not Depreciated	59,981	-	-	59,981
Capital Assets Depreciated				
Land Improvements	19,000	-	-	19,000
Buildings	411,116	-	-	411,116
Monitor Wells	61,807	31,131	-	92,938
Mobile Classroom	90,689	-	-	90,689
Field Equipment	17,244	-	-	17,244
District Vehicles	6,920	-	-	6,920
Office Equipment	67,639	3,935	-	71,573
Total Depreciated	674,415	35,066	-	709,480
Total Capital Assets	734,396	35,066	-	769,461
Accumulated Depreciation	(144,190)	(33,082)	-	(177,272)
Net Investment in Capital Assets	$ 590,206	$ 1,984	$ -	$ 592,189

NOTE 4 – CASH DEPOSITS AND INVESTMENTS WITH FINANCIAL INSTITUTIONS

The District's checking deposits were fully covered by federal depository insurance. The Texas Treasury Safekeeping Trust Company (TexPool) investments at September 30, 2019, were not covered by federal depository insurance or pledged securities. In accordance with GASB Statement No. 31, *Accounting and Reporting for Certain Investments and External Investment Pools*, the District reports all investments at fair value. The District's invested funds are invested with TexPool. The District categorizes its fair value measurements within the hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are other observable inputs; and Level 3 inputs are unobservable inputs.

The District's cash and invested funds at September 30, 2019, were as follows:

	General Fund	Input Level
BancorpSouth		
Operating account	$ 11,060	-
TexPool Accounts		
LGI Pool	428,966	2
Prime	432,613	2
Total TexPool accounts	861,579	
Total cash and invested funds	$ 872,639	

NOTE 4 – CASH DEPOSITS AND INVESTMENTS WITH FINANCIAL INSTITUTIONS (Continued)

Policies, Governing Deposits and Investments

The District has implemented an investment policy and is authorized, according to the *Public Funds Investment Act* (PFIA) (Government Code Chapter 2256), to invest any and all of its funds in certificates of deposit, direct debt securities of the United States of America or the State of Texas, fully collateralized repurchase agreements, certain types of commercial paper, certain types of municipal bonds and local government investment pools created under the Interlocal Cooperation Act, wherein all funds were invested as listed above.

In compliance with the Public Funds Investments Act, the District has adopted a deposit and investment policy where that policy addresses the following risks:

Custodial Credit Risk – Deposits: This is the risk that in the event of bank failure, the District's deposits may not be returned to it. The District was not exposed to custodial credit risk since deposits, in the bank during the year ended September 30, 2019, were covered by depository insurance.

Custodial Credit Risk – Investments: 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. Investments are subject to custodial credit risk only if they are evidenced by securities that exist in physical or book entry form. Thus, positions in external investment pools are not subject to custodial credit risk because they are not evidenced by securities that exist in physical or book entry form.

The market value for the above listed accounts is not materially different from the carrying value of the accounts.

NOTE 5 – EMPLOYEE BENEFITS

A. Annual Leave

Annual leave (vacation) is a benefit provided to eligible, full-time, employees of the District. A full-time employee is one who is regularly scheduled to work thirty to forty hours per week. Annual leave is accrued at eight hours per pay period immediately upon employment but cannot be taken until the employee has reached the one hundred eighty (180) day probationary period. The accrual maximum is twelve days for an employee with up to five years of continuous service. After five years, an employee is entitled to accrue an additional three days for a total of fifteen days per year. An employee may carry-over leave up to a maximum of twenty-four days per fiscal year. Remaining accrued leave is payable upon separation. Accrued compensated absences for September 30, 2019 was $9,430.

B. Sick Leave

A full-time employee, as previously defined, is entitled to six days per year. Accrual of sick leave is at four hours per pay period and a full-time employee can accumulate up to twelve days with carry-over. Upon termination of employment, no accumulated sick leave will be paid and therefore, no accrual is recorded.

C. Retirement Plan

The District has established a Governmental 457 Deferred Compensation Plan as their retirement plan for full-time eligible employees. UMB Bank, N.A. is designated as trustee and Security Financial Resources, Inc. is the plan service provider. The District agrees to match employee contributions at 100% of the first 3% and 50% of the next 3% for a maximum match of up to 4.5% depending on the contribution of the employee. As of September 30, 2019, the employer match was $ 8,383.

NOTE 6 - SUBSEQUENT EVENTS

District management has evaluated subsequent events as of February 6, 2020 the date the financial statements were available to be issued. No change to the financial statements for the fiscal year ending September 30, 2019 is deemed necessary as a result of this evaluation.

ALTON D. THIELE, P.C.

CERTIFIED PUBLIC ACCOUNTANT
300 E. AVENUE C
P.O. BOX 808
BELTON, TX 76513-0808

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

To the Board of Directors
Clearwater Underground Water Conservation District
Belton, Texas

We have audited, in accordance with 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 governmental activities and the aggregate remaining fund balance information of Clearwater Underground Water Conservation District (the District) as of and for the year ended September 30, 2019, and the related notes to the financial statements, which collectively comprise the basic financial statements, and have issued our report thereon dated February 6, 2020.

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 opinion 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 entity'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
As part of obtaining reasonable assurance about whether the District's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, and contracts, 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 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 entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Belton, Texas
February 6, 2020

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE-BUDGET TO ACTUAL-GENERAL FUND
FOR THE YEAR ENDED SEPTEMBER 30, 2019

	General Fund			Variance Favorable (Unfavorable)
	Original Budget	Final Budget	Actual	
REVENUES				
Property taxes	$ 723,771	$ 723,771	$ 704,405	$ (19,366)
Application fee	30,000	30,000	1,800	(28,200)
Transport fee	1,000	1,000	1,626	626
Interest	5,000	5,000	25,348	20,348
Other income (expense)	-	-	-	-
Total revenues	759,771	759,771	733,179	(26,592)
EXPENDITURES				
Administrative expenses	68,003	68,205	39,820	28,385
Compensation and benefits	273,820	277,252	268,010	9,242
Clearwater studies	167,383	167,383	101,436	65,947
Educational outreach/marketing	22,500	17,176	13,252	3,924
Spring flow gage	15,900	18,400	18,400	-
Computer systems	42,250	42,250	35,876	6,374
Legal fees	63,000	63,000	52,762	10,238
Reserve for uncollected taxes	20,000	19,366	-	19,366
Other operating expenses (net)	57,400	57,400	48,546	8,854
Facility costs	20,915	20,739	19,579	1,160
Utilities	8,600	8,600	7,927	673
Total expenditures	759,771	759,771	605,608	154,163
Excess (deficiency) of revenues over expenditures	-	-	127,571	127,571
OTHER REVENUE				
Reserve funds for health insurance	-	-	-	-
Reserve for equipment	-	-	-	-
Total other revenue	-	-	-	-
Change in fund balance	$ -	$ -	127,571	$ 81,511
FUND BALANCE				
Beginning of fiscal year			745,066	
End of fiscal year			$ 872,637	

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

INDEX OF SUPPLEMENTAL SCHEDULES INCLUDED IN THIS REPORT

SEPTEMBER 30, 2019

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF GENERAL FUND EXPENDITURES
FOR THE YEAR ENDED SEPTEMBER 30, 2019

Current			
Compensation and benefits	$	268,010	
(Number of persons employed by the District: 4 - Full-time)			
Professional Services			
Auditing		6,900	
Legal		52,762	
Clearwater studies		70,305	
Utilities		7,927	
Facility costs		15,644	
Administrative expenses (including director fees)		32,920	
Capital outlay			
Acquisition of capital assets		35,066	
Educational outreach/marketing		13,252	
Computer systems		35,876	
Other operating expenses		66,946	
Other expenditures		-	
TOTAL	$	605,608	(see page 8)
Depreciation	$	33,082	

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF TEMPORARY INVESTMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2019

Governmental Funds	Pool / Type	Interest Rate	Maturity Date	Balance at End of Year
General Fund				
Local Government Investment Pools				
TexPool	449	2.1371%	Demand	$ 428,966
TexPool - Prime	590	2.3072%	Demand	432,613
TOTAL				861,579
Other accounts				
BancorpSouth - Operations Account	Transaction	N/A	Demand	11,060
TOTAL				11,060
TOTAL ALL ACCOUNTS				$ 872,639

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
ANALYSIS OF TAXES LEVIED AND RECEIVABLE
FOR THE YEAR ENDED SEPTEMBER 30, 2019

	Maintenance Taxes
Taxes receivable at October 1, 2018	$ 28,293
2018 Original tax roll, net of adjustments	709,669
Total to be accounted for	737,962
Tax Collections:	
Current year	(690,071)
Prior years	(14,334)
Total collections	(704,405)
Adjustments	(11,820)
Taxes receivable, September 30, 2019	$ 21,737
Taxes receivable by years:	
2012 and years prior to	$ 4,915
2013	1,091
2014	1,213
2015	1,624
2016	2,158
2017	3,589
2018	7,147
Taxes receivable, September 30, 2019	$ 21,737

	2018	2017	2016
Property Valuations, net taxable	$ 18,670,513,065	$ 18,057,233,710	$ 17,063,799,755
Tax rates per $100 valuation:			
Debt service tax rates	N/A	N/A	N/A
Maintenance tax rates	0.00383	0.00385	0.00392
Total tax rates per $100 valuation:	0.00383	0.00385	0.00392
Gross Original tax levy	$ 715,081	$ 695,203	$ 668,901
Percent of taxes collected to taxes levied	96.75%	97.22%	97.46%

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF BOARD MEMBERS, CONSULTANTS, AND KEY PERSONNEL
SEPTEMBER 30, 2019

Complete District Mailing Address: PO Box 1989, Belton, TX 76513

District Business Telephone Number: (254) 933-0120

Submission Date of the most recent District Registration Form: N/A
(TWC Sections 36.054 and 49.054)

Limit on Fees of Office that a Director may receive during a fiscal year: $9,000
(TWC Section 36.060) Fee: $150 per day while on District busines

Name and addresses	Precinct and Terms of Office 4-year terms	Fees Paid as of 09/30/2019	Expense Reimbursement	Title as of 09/30/2019	Property owner within the District
Board Members					
Leland Gersbach 7872 Hackberry Holland, TX 76534	Precinct 1 2016 to 2020	Waived	$192	President	Yes
Gary Young 1314 Creek View, Salado, TX 76571	Precinct 2 2018 to 2022	$3,150	$187	Secretary	Yes
Wallace Biskup PO Box 265 Troy, TX 76579	Precinct 3 Resigned Dec. 2018	-	-	Director	Yes
Jody Williams P.O. Box 780 Rogers, TX 76569	Precinct 3 2018 to 2020	$2,100	$187	Director	Yes
Scott Brooks 425 Mercy Ranch Rd. Florence, TX 76527	Precinct 4 2018 to 2022	-	-	Director	Yes
David Cole 2401 Brown Circle Killeen, TX 76543	At-Large 2018 to 2022	$2,550	$187	Vice President	Yes
Consultants					
Lloyd Gosselink Attorneys at Law 816 Congress Ave Suite 1900 Austin, TX 78701-4071	N/A	$67,827	N/A	Attorney	N/A
Alton D Thiele, P.C. P.O. Box 808 Belton, TX 76513	N/A	$6,900	N/A	Auditor	N/A
Key Personnel		**Salary**			
Dirk Aaron	N/A	$80,237		District Manager	
Shelly Chapman	N/A	$46,986		District Administrative Assistant	

Appendix C

Well Registration Totals

Year	Exempt Wells		Non-Exempt Wells			Monitor Wells		Total
	Grandfathered	New	Grandfathered	Class 1	Class 2	Water	Envr	
2002-2018	4170	958	104	30	45	23	121	**5451**
2019 Jan	0	1	0	0	0	2	0	**3**
Feb	22	7	0	1	0	0	0	**30**
Mar	0	5	0	0	0	0	0	**5**
Apr	6	5	0	0	0	0	0	**11**
May	26	5	0	0	2	0	0	**33**
June	31	3	0	2	0	0	0	**36**
July	8	7	0	0	1	0	0	**16**
Aug	84	5	0	0	0	0	0	**89**
Sept	1	3	0	0	0	0	0	**4**
Oct	1	5	0	0	0	0	0	**6**
Nov	1	3	0	0	0	0	0	**4**
Dec	2	6	0	0	4	0	0	**12**
Total 2019	**182**	**55**	**0**	**3**	**7**	**2**	**0**	**249**
Totals	**4352**	**1013**	**104**	**33**	**52**	**25**	**121**	**5700**

Adjustments

Adjustment Type	Exempt Wells		Non-Exempt Wells			Monitor Wells		Total
	Grandfathered	New	Grandfathered	Class 1	Class 2	Water	Envr	
2002-Present	**4352**	**1013**	**104**	**33**	**52**	**25**	**121**	**5700**
Never Drilled	N/A	-27	N/A	-3	-4	0	-1	-35
Plugged	-203	-42	-18	-2	-1	-2	-53	-321
Totals	**4149**	**944**	**86**	**28**	**47**	**23**	**67**	**5344**

Appendix D

Non-Exempt Wells--Edwards BFZ

File No.	State #	Name	Hist. Permit (Acre-Feet)	Oper. Permit (Acre-Feet)	Total Permit (Acre-Feet)	Jan (2019 Monthly Production (gallons))	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	YTD ac-ft	% Permit
		Chick Landscaping	**0.00**	**2.29**	**2.29**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**28,800**	**0.09**	**3.93%**
N2-06-002G		Chick Landscaping Well #2				2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	**28,800**	**0.09**	**3.93%**
		Jarrell-Schwertner WSC	**301.20**	**153.00**	**454.20**	**10,437,811**	**8,678,982**	**9,614,346**	**8,178,424**	**8,833,474**	**8,445,911**	**10,534,057**	**17,719,659**	**12,369,338**	**10,631,425**	**9,976,802**	**10,484,436**	**125,904,665**	**386.38**	**85.07%**
N2-02-041G	5804808	JSWSC (Prairie Dell 2)				3,510,752	41,306	186,326	2,931,105	3,877,895	3,775,188	4,701,736	5,343,543	5,564,282	4,695,985	4,556,783	5,092,298	**44,277,199**	**135.88**	**29.92%**
N2-02-042G	5804811	JSWSC (Prairie Dell 5)				4,871,072	4,521,651	5,000,349	2,802,550	2,881,535	2,654,694	4,055,464	7,754,619	3,695,219	3,395,765	3,110,434	2,900,157	**47,643,509**	**146.21**	**32.19%**
N2-03-005P		JSWSC (Prairie Dell 8)				2,055,987	4,116,025	4,427,671	2,444,769	2,074,044	2,016,029	1,776,857	4,621,497	3,109,837	2,539,675	2,309,585	2,491,981	**33,983,957**	**104.29**	**22.96%**
		Not Aggregated																		
N2-15-003P		Anthony Craft		0.60	**0.60**	510	430	950	500	920	10	420	2,590	400	410	840	410	**8,390**	**0.03**	**5.00%**
N2-02-016G		Arthur. W. Capps	70.50		**70.50**	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	**1,080,000**	**3.31**	**4.70%**
N2-07-010G	5804637	Bloomer Mfg.		2.07	**2.07**	20,271	16,359	25,897	11,185	19,681	17,647	21,675	18,523	3,805	7,629	0	0	**162,672**	**0.50**	**24.15%**
N2-11-004P	5804631	Charles Broecker		0.99	**0.99**	0	0	0	3,000	5,000	10,000	15,000	25,000	25,000	15,000	5,000	5,000	**108,000**	**0.33**	**33.33%**
N2-16-002G		Charles Dunifer		0.60	**0.60**	500	500	311	64	0	1,106	3,250	1,957	27,700	5,030	0	2,110	**42,528**	**0.13**	**21.67%**
N1-09-004P		Domingo Perez		0.53	**0.53**	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	**172,992**	**0.53**	**100.00%**
N2-17-001P	5804305	Heart of Texas Feed		0.14	**0.14**	950	450	560	1,030	830	700	940	780	370	770	440	440	**8,260**	**0.03**	**21.43%**
N2-11-005P	5805108	James & Terry Boston		1.66	**1.66**	1,537	2,495	2,211	3,011	3,779	3,713	2,513	3,506	4,129	1,408	1,241	762	**30,305**	**0.09**	**5.42%**
N1-07-001P		James Schnitker		1.84	**1.84**	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	**600,000**	**1.84**	**100.00%**
N1-13-002P		Janet Stone		0.34	**0.34**	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	**110,796**	**0.34**	**100.00%**
N1-14-001P		Karen Duerr		0.27	**0.27**	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	**87,972**	**0.27**	**100.00%**
N1-10-001P		Kenneth Stone		0.57	**0.57**	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	**185,340**	**0.57**	**100.00%**
N2-08-004P		Lonnie Sherman		1.10	**1.10**	0	0	0	100	0	0	0	0	0	0	0	0	**100**	**0.00**	**0.00%**
N2-09-002P		O. W. Lowery		1.84	**1.84**	38,640	16,150	48,460	60	29,260	42,130	107,390	107,130	63,140	95,980	25,490	28,660	**602,490**	**1.85**	**100.54%**
N1-07-005P		Patricia Suarez		0.38	**0.38**	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	**123,996**	**0.38**	**100.00%**
N2-07-005G		RLF Salado Quarries (Office)		3.91	**3.91**	2,560	283	251	222	1,975	2,150	2,380	750	60	2,160	2,660	2,230	**17,681**	**0.05**	**1.28%**
N1-07-003P		Ronald Gravette		0.38	**0.38**	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	**123,996**	**0.38**	**100.00%**
N2-03-004G	5804627	Salado ISD (MS)	1.50		**1.50**	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	**116,640**	**0.36**	**24.00%**
N2-09-004G		Salado UMC		1.86	**1.86**	0	500	960	18,580	17,870	15,530	31,350	39,890	39,540	36,986	0	0	**201,206**	**0.62**	**33.33%**
N2-15-004P	5804633	Scott Law Well #1		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-005P	5804634	Scott Law Well #2, Isaac Byers		1.25	**1.25**	21,253	21,253	21,253	21,253	21,253	1,630	50,581	44,303	25,762	21,044	9,717	7,771	**267,073**	**0.82**	**65.60%**
N2-15-006P		Scott Law Well #3		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-007P		Scott Law Well #4		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-008P		Scott Law Well #5		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-009P		Scott Law Well #6		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-010P	5805109	Scott Law Well #7 - Brady Woods		0.60	**0.60**	7,485	7,485	4,600	3,300	5,400	1,680	48,760	7,880	7,650	3,900	30,330	10,060	**138,530**	**0.43**	**71.67%**
N2-15-011P		Scott Law Well #8		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-012P		Scott Law Well #9 - Jana Lever		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-04-017G		Sonic of Salado		0.86	**0.86**	1,986	2,490	2,560	2,198	2,717	2,610	2,586	2,595	2,718	2,680	2,046	2,490	**29,676**	**0.09**	**10.47%**
N1-18-002P	5812203	Windy Meadows		0.47	**0.47**	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	12,762	**153,144**	**0.47**	**100.00%**
		Salado WSC	**1,472.30**	**36.99**	**1,509.29**	**24,009,000**	**21,061,000**	**25,916,000**	**23,292,000**	**19,975,000**	**26,533,000**	**44,939,000**	**77,311,000**	**50,151,000**	**35,039,000**	**19,649,000**	**18,402,000**	**386,277,000**	**1,185.45**	**78.54%**
N2-02-010G	5804512	7KX Ranch (#8)				0	0	2,000	1,939,000	145,000	761,000	4,633,000	24,541,000	22,773,000	16,167,000	2,564,000	0	**73,525,000**	**225.64**	**14.95%**
N2-02-011G	5804513	7KX Ranch (#9)				6,035,000	5,238,000	5,952,000	3,030,000	1,000	1,000	1,078,000	220,000	0	0	3,605,000	6,163,000	**31,323,000**	**96.13**	**6.37%**
N2-03-003G	5804602	Salado WSC (#1)				6,000	0	0	0	92,000	1,000	82,000	3,903,000	3,931,000	4,020,000	3,738,000	3,493,000	**19,266,000**	**59.13**	**3.92%**
N2-02-004G	5804604	Salado WSC (#2)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-005G	5804508	Salado WSC (#3)				191,000	0	58,000	140,000	88,000	3,000	201,000	9,983,000	10,151,000	10,381,000	9,565,000	8,199,000	**48,960,000**	**150.25**	**9.96%**
N2-02-006G	5804621	Salado WSC (#4)				572,000	1,335,000	2,122,000	840,000	14,000	2,305,000	11,045,000	4,529,000	3,352,000	1,209,000	147,000	547,000	**28,017,000**	**85.98**	**5.70%**
N2-02-007G	5804509	Salado WSC (#5)				862,000	245,000	173,000	4,677,000	17,567,000	12,411,000	6,533,000	2,741,000	3,081,000	638,000	30,000	0	**48,958,000**	**150.25**	**9.96%**
N2-02-008G	5804510	Salado WSC (#6)				16,271,000	14,243,000	17,405,000	12,438,000	2,043,000	10,983,000	19,525,000	6,853,000	1,667,000	151,000	0	0	**101,579,000**	**311.74**	**20.65%**
N2-02-009G	5804626	Salado WSC (#7)				72,000	0	204,000	228,000	25,000	68,000	1,842,000	24,541,000	5,196,000	2,473,000	0	0	**34,649,000**	**106.33**	**7.05%**
		Schwertner Farms	**328.90**	**74.05**	**402.95**	**9,868,484**	**10,722,076**	**14,106,289**	**14,525,774**	**10,098,153**	**7,984,594**	**9,832,071**	**10,709,493**	**9,514,972**	**9,068,699**	**7,680,598**	**8,805,816**	**122,917,019**	**377.22**	**93.61%**
N2-04-005G		Schwertner Farms Blackwell				256,615	176,222	189,223	274,924	339,252	413,100	401,880	292,485	277,100	253,487	301,359	237,150	**3,412,797**	**10.47**	**2.60%**
N2-04-001G		Schwertner Farms CCL #1				2,492,621	2,887,000	3,941,791	4,026,759	2,399,472	1,740,405	2,285,448	2,652,745	2,344,238	2,224,853	1,759,767	2,136,500	**30,891,599**	**94.80**	**23.53%**
N2-04-002G		Schwertner Farms CCL #2				2,492,621	2,887,000	3,941,791	4,026,759	2,399,472	1,740,405	2,285,448	2,652,745	2,344,238	2,224,853	1,759,767	2,136,500	**30,891,599**	**94.80**	**23.53%**
N2-04-003G		Schwertner Farms CCL #3				2,492,621	2,887,000	3,941,791	4,026,759	2,399,472	1,740,405	2,285,448	2,652,745	2,344,238	2,224,853	1,759,767	2,136,500	**30,891,599**	**94.80**	**23.53%**
N2-04-004G		Schwertner Farms Eastland W.				292,502	267,546	287,742	305,660	336,668	334,152	311,525	284,308	293,675	308,295	319,056	304,198	**3,645,327**	**11.19**	**2.78%**
N2-04-006G		Schwertner Farms ES #1				112,655	109,952	117,313	108,235	128,278	125,320	132,426	132,000	106,540	105,175	98,800	100,160	**1,376,854**	**4.23**	**1.05%**
N2-04-007G		Schwertner Farms ES #2				734,927	594,694	669,868	715,836	931,413	1,019,405	960,347	840,548	737,341	726,716	718,029	758,421	**9,407,545**	**28.87**	**7.16%**
N2-04-008G		Schwertner Farms ES #3				608,158	577,558	647,156	655,792	751,638	468,587	774,214	811,053	702,780	633,114	596,700	624,665	**7,851,415**	**24.10**	**5.98%**
N2-10-006P		Schwertner Farms Little D.				385,764	335,104	369,614	385,050	412,488	402,815	395,335	390,864	364,822	367,353	367,353	371,722	**4,548,284**	**13.96**	**3.46%**
		Stagecoach Inn	**35.30**	**7.02**	**42.32**	**665,975**	**716,781**	**65,000**	**100**	**273,200**	**574,300**	**1,343,400**	**1,198,400**	**699,300**	**1,226,900**	**3,346,100**	**285,600**	**10,395,056**	**31.90**	**75.38%**
N2-02-002G	5804623	Stagecoach (deep)				665,975	716,781	65,000	100	273,200	574,300	1,343,400	1,198,400	699,300	1,226,900	3,346,100	285,600	**10,395,056**	**31.90**	**75.38%**
N2-02-037G		Stagecoach (spring)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
Totals:			**2,209.70**	**300.77**	**2,510.47**	**45,308,935**	**41,479,207**	**50,041,621**	**46,292,774**	**39,520,485**	**43,868,684**	**67,167,346**	**107,425,429**	**73,166,857**	**56,390,994**	**40,962,237**	**38,269,758**	**649,894,327**	**1,994.46**	**79.45%**

Non-Exempt Wells--Trinity

File No.	State #	Name	Acre-Feet Hist. Permit	Acre-Feet Oper. Permit	Acre-Feet Total Permit	2019 Monthly Production (gallons) Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	YTD ac-ft	% Permit
		Armstrong WSC	**154.90**	**333.00**	**487.90**	**1,079,030**	**765,060**	**1,354,540**	**1,354,540**	**2,438,020**	**2,280,500**	**2,822,560**	**5,177,200**	**5,675,010**	**1,053,250**	**50**	**834,000**	**24,833,760**	**76.21**	**15.62%**
N2-02-024G	5805202	Armstrong WSC #1				30	60	16,540	16,540	20	7,500	14,560	26,200	27,010	11,250	50	44,000	**163,760**	**0.50**	**0.10%**
N2-10-001P	5805502	Armstrong WSC #2				1,079,000	765,000	1,338,000	1,338,000	2,438,000	2,273,000	2,808,000	5,151,000	5,648,000	1,042,000	0	790,000	**24,670,000**	**75.71**	**15.52%**
		Bell Milam Falls WSC	**262.20**	**0.00**	**262.20**	**587,800**	**4,039,800**	**4,748,200**	**4,093,800**	**4,120,100**	**7,769,600**	**9,463,300**	**11,053,700**	**11,261,800**	**7,698,300**	**1,477,000**	**6,998,100**	**73,311,500**	**224.98**	**85.80%**
N2-02-046G	5814402	Bell-Milam-Falls WSC (Bartlett)				176,000	0	0	0	2,000	3,074,000	4,127,000	5,015,000	4,419,000	3,703,000	1,477,000	2,332,000	**24,325,000**	**74.65**	**28.47%**
N2-02-038G	5806601	Bell-Milam-Falls WSC (Rogers)				411,800	4,039,800	4,748,200	4,093,800	4,118,100	4,695,600	5,336,300	6,038,700	6,842,800	3,995,300	0	4,666,100	**48,986,500**	**150.33**	**57.33%**
		Central Texas WSC	**0.00**	**1,776.00**	**1,776.00**	**4,984,000**	**1,667,000**	**1,970,000**	**1,676,000**	**2,191,000**	**54,000**	**0**	**381,000**	**1,887,000**	**3,333,000**	**686,000**	**38,000**	**18,867,000**	**57.90**	**3.26%**
N2-14-004P	5804203	CTWSC Doc Curb				0	0	0	0	1,116,000	54,000	0	381,000	1,887,000	3,333,000	686,000	38,000	**7,495,000**	**23.00**	**1.30%**
N2-14-005P	5806202	CTWSC System Split Well				4,984,000	1,667,000	1,970,000	1,676,000	1,075,000	0	0	0	0	0	0	0	**11,372,000**	**34.90**	**1.97%**
		City of Troy	**119.90**	**100.60**	**220.50**	**1,491,300**	**1,653,400**	**1,292,500**	**1,338,000**	**1,419,200**	**807,321**	**1,014,200**	**1,409,200**	**1,256,900**	**1,173,200**	**607,500**	**800**	**13,463,521**	**41.32**	**18.74%**
N2-02-036G	4054503	City of Troy #1				1,491,300	1,653,400	1,292,500	1,338,000	1,419,200	807,321	1,014,200	1,409,200	1,256,900	1,173,200	607,500	800	**13,463,521**	**41.32**	**18.74%**
N2-15-002P		City of Troy #2				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
		East Bell WSC	**69.70**	**114.85**	**184.55**	**512,000**	**542,000**	**652,000**	**586,000**	**619,000**	**566,000**	**1,350,000**	**4,863,000**	**5,441,000**	**3,508,000**	**640,000**	**786,000**	**20,065,000**	**61.58**	**33.37%**
N2-02-034G	4063501	East Bell WSC #1				135,000	143,000	180,000	105,000	69,000	108,000	350,000	2,144,000	2,275,000	1,852,000	240,000	254,000	**7,855,000**	**24.11**	**13.06%**
N2-04-010P	5806301	East Bell WSC #2				377,000	399,000	472,000	481,000	550,000	458,000	1,000,000	2,719,000	3,166,000	1,656,000	400,000	532,000	**12,210,000**	**37.47**	**20.30%**
		Leon River Turkey Farms	**60.90**	**0.00**	**60.90**	**10,400**	**19,800**	**13,000**	**19,900**	**13,200**	**11,600**	**27,800**	**5,000**	**3,800**	**9,500**	**10,500**	**5,200**	**149,700**	**0.45**	**0.74%**
N2-02-045G	5805403	Leon River Turkey				8,000	17,000	10,000	17,000	1,500	8,000	24,000	1,000	1,000	4,000	3,500	4,000	**99,000**	**0.30**	**0.49%**
N2-02-043G	4053301	Leon River Turkey (East)				1,200	1,400	1,500	1,400	10,000	1,700	1,800	1,800	1,700	4,500	6,000	0	**33,000**	**0.10**	**0.16%**
N2-02-044G	4053302	Leon River Turkey (West)				1,200	1,400	1,500	1,500	1,700	1,900	2,000	2,200	1,100	1,000	1,000	1,200	**17,700**	**0.05**	**0.08%**
		Lhoist	**40.00**	**0.00**	**40.00**	**19,576**	**18,475**	**23,021**	**21,192**	**19,775**	**28,674**	**26,110**	**30,022**	**28,636**	**29,332**	**23,350**	**15,432**	**283,595**	**0.87**	**2.18%**
N2-03-002G	4060101	LHoist #1				19,576	18,475	23,021	21,192	19,775	28,674	26,110	30,022	28,636	29,332	23,350	15,432	**283,595**	**0.87**	**2.18%**
N2-03-003G		LHoist #2				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
		Moffat WSC	**47.70**	**157.80**	**205.50**	**1,919,000**	**1,905,000**	**1,909,000**	**1,765,000**	**2,959,000**	**4,822,000**	**9,903,000**	**12,440,000**	**10,902,000**	**6,311,000**	**4,757,000**	**6,468,000**	**66,060,000**	**202.73**	**98.65%**
N2-02-022G	4053406	Moffat WSC #1				310,000	275,000	1,651,000	1,576,000	464,000	764,000	1,194,000	0	0	0	0	0	**6,234,000**	**19.13**	**9.31%**
N2-13-001P	4053507	Moffat WSC #2				1,609,000	1,630,000	258,000	189,000	2,495,000	4,058,000	8,709,000	12,440,000	10,902,000	6,311,000	4,757,000	6,468,000	**59,826,000**	**183.60**	**89.34%**
		Not Aggregated																		
N1-17-002P		Advanced Electrical Systems		0.88	**0.88**	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	**288,000**	**0.88**	**100.00%**
N1-11-002P		Andrew Robertson		0.59	**0.59**	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	**192,252**	**0.59**	**100.00%**
N2-07-008G		Apache Stone		22.66	**22.66**	418,660	432,940	490,280	552,500	307,230	529,360	726,240	637,640	695,220	668,620	407,200	417,540	**6,283,430**	**19.28**	**85.08%**
N2-02-001G	5806102	Bell Co. WCID #2	184.20	21.60	**205.80**	554,000	1,867,000	1,846,000	2,719,000	2,863,000	2,526,000	2,943,000	2,509,000	3,148,000	5,180,000	2,217,000	2,043,000	**30,415,000**	**93.34**	**45.35%**
N2-02-040G	4062801	Bell Co. WCID #5	20.70	8.00	**28.70**	558,900	331,200	71,600	439,600	438,800	507,500	339,100	746,700	474,900	0	0	0	**3,908,300**	**11.99**	**41.78%**
N2-03-001G	4062401	Cen. TX Vet. Hospital		60.00	**60.00**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-19-001P		CenTex Acres 1		0.61	**0.61**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-19-002P		CenTex Acres 2		0.61	**0.61**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-04-011P	4061407	Central Texas Strike Zone		1.30	**1.30**	0	0	0	0	0	0	0	6,616	6,456	0	0	0	**13,072**	**0.04**	**3.08%**
N2-08-003G		City of Harker Heights		1.16	**1.16**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-013G	5805901	City of Holland	158.40		**158.40**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-012G	5807701	City of Rogers	139.40		**139.40**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N1-16-005P	4059803	David Cole		0.39	**0.39**	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	**127,080**	**0.39**	**100.00%**
N2-19-003P		Eveans		0.50	**0.50**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-07-007G		Garden of Hope of Central Texas		0.01	**0.01**	150	250	271	271	271	271	0	271	270	250	250	250	**2,775**	**0.01**	**100.00%**
N1-19-003P		Gary Kelley		0.20	**0.20**	0	0	0	0	0	0	0	0	0	0	5,353	5,353	**10,706**	**0.03**	**15.00%**
N1-07-002P		Ingo Smith		1.57	**1.57**	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	**513,192**	**1.57**	**100.00%**
N1-18-001P	5803506	Joe Jackson		0.36	**0.36**	9,672	9,672	9,672	9,672	9,672	9,672	9,672	9,672	9,672	9,672	9,672	9,672	**116,064**	**0.36**	**100.00%**
N1-05-001P		John Kurzyniec		0.67	**0.67**	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	**219,000**	**0.67**	**100.00%**
N1-18-004P	5803404	Justin Scott		0.22	**0.22**	0	0	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	**60,830**	**0.19**	**86.36%**
N2-07-003G	5803503	Killeen Crushed Stone		36.00	**36.00**	0	100	0	0	0	0	964,900	758,600	1,459,800	2,342,900	0	0	**5,526,300**	**16.96**	**47.11%**
N2-09-001P		Kimberly Langston		12.32	**12.32**	1,610	56,560	393,330	32,740	54,310	70,960	135,190	441,750	398,042	156,278	15,730	25,082	**1,781,582**	**5.47**	**44.40%**
N2-08-001P		Kirby Stone		16.03	**16.03**	198,000	156,000	111,640	140,150	153,240	207,590	246,000	254,000	266,940	227,400	162,000	104,800	**2,227,760**	**6.84**	**42.67%**
N1-09-003P	4053707	Laurie Gehring		0.34	**0.34**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-039G	4054801	Little Elm Valley WSC	91.20		**91.20**	1,769,200	1,494,700	1,462,900	1,403,200	1,672,900	2,041,400	3,224,000	3,297,100	2,894,800	2,235,400	1,573,600	1,445,300	**24,514,500**	**75.23**	**82.49%**
N1-19-007P		Lone Star Land Partners, LLC		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N1-19-008P		Lone Star Land Partners, LLC		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-07-006G	5802101	Maxdale Cowboy Church		0.16	**0.16**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N1-16-004P	4059804	Michael Maples		0.39	**0.39**	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	10,590	**127,080**	**0.39**	**100.00%**
N2-02-035G		Mill Creek Country Club, LLC	61.90	60.00	**121.90**	0	0	0	0	3,240,000	2,160,000	1,800,000	1,800,000	3,600,000	1,440,000	0	0	**14,040,000**	**43.09**	**35.35%**
N1-18-003P	4059302	Myers		1.98	**1.98**	53,765	53,765	53,765	53,765	53,765	53,765	53,765	53,765	53,765	53,765	53,765	53,765	**645,180**	**1.98**	**100.00%**
N2-02-017G	4055701	Oenaville / Belfalls WSC	16.20	20.79	**36.99**	70,708	57,688	131,186	92,869	141,364	105,800	130,388	598,210	873,324	44,892	6,877	5,466	**2,258,772**	**6.93**	**18.73%**
N2-07-009G		Parrie Haynes Ranch		13.80	**13.80**	88,019	23,961	27,083	20,280	11,305	31,210	84,668	60,435	36,381	22,842	39,634	30,028	**475,846**	**1.46**	**10.58%**
N2-09-005G		R S Materials Group		16.67	**16.67**	415,575	352,399	378,488	321,881	341,834	243,883	361,281	1,294,553	461,897	1,059,164	1,074,818	929,018	**7,234,791**	**22.20**	**133.17%**
N1-16-001P	5803505	Richard Ross		0.70	**0.70**	19,008	19,008	19,008	19,008	19,008	19,008	19,008	19,008	19,008	19,008	19,008	19,008	**228,096**	**0.70**	**100.00%**
N1-17-001P		Robert & Victoria Lewis		0.82	**0.82**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N1-16-006P	4057603	Ronald Ham		0.53	**0.53**	14,391	14,391	14,391	14,391	14,391	14,391	14,391	14,391	14,391	14,391	14,391	14,391	**172,692**	**0.53**	**100.00%**
N2-05-004P		Salado B.P. / Ronnie Tynes		11.05	**11.05**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-08-002P	5804314	Salado ISD (HS)		21.41	**21.41**	111,962	45,670	67	248,477	21,195	417,587	223,129	420,445	263,019	146,455	661	23,042	**1,921,709**	**5.90**	**27.56%**
N2-07-011G	5804624	Stagecoach (Spa)		0.05	**0.05**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-07-012G		Temple Park Estates		9.50	**9.50**	41,270	135,180	55,840	123,100	63,250	93,120	379,100	380,410	189,290	102,930	55,800	60,630	**1,679,920**	**5.16**	**54.32%**
N2-05-003P	40589	Texas Veterans Land Board		36.80	**36.80**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-13-002P	5806201	Trinity Oasis LLC (Jack Hilliard Dozer and Material		73.20	**73.20**	225,300	871,200	0	927,500	1,643,600	982,400	4,863,700	1,926,700	1,251,000	1,176,500	1,341,000	1,576,400	**16,785,300**	**51.51**	**70.37%**
N2-11-003G	4061408	UMHB		7.50	**7.50**	0	0	0	195	173	5,543	17,569	20,059	19,248	18,529	6,504	10,700	**98,520**	**0.30**	**4.00%**
N2-06-008P		VillasDelSol / John Henderson		3.13	**3.13**	8,000	5,500	23,000	12,000	30,000	25,000	107,000	138,000	76,000	65,000	9,000	11,000	**509,500**	**1.56**	**49.84%**
N1-08-001P		Yong Conway		1.59	**1.59**	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	**517,440**	**1.59**	**100.00%**
		Pendleton WSC	**75.30**	**47.07**	**122.37**	**3,363,300**	**2,900,500**	**3,536,700**	**1,914,200**	**3,238,500**	**2,656,200**	**3,159,400**	**4,063,100**	**3,305,900**	**1,601,800**	**2,166,900**	**2,055,600**	**33,962,100**	**104.23**	**85.18%**
N2-02-047G	4054401	Pendleton WSC (#1)				1,828,800	1,585,800	1,934,200	1,046,600	1,838,500	2,656,200	3,159,400	4,063,100	3,305,900	1,601,800	2,166,900	2,055,600	**27,242,800**	**83.61**	**68.33%**
N2-02-048G	4054502	Pendleton WSC (#2)				1,534,500	1,314,700	1,602,500	867,600	1,400,000	0	0	0	0	0	0	0	**6,719,300**	**20.62**	**16.85%**
Totals:			**1,502.60**	**2,996.61**	**4,499.21**	**18,689,933**	**19,603,556**	**20,758,902**	**20,070,651**	**28,268,523**	**29,211,775**	**44,579,891**	**54,980,967**	**56,144,889**	**39,872,798**	**17,551,983**	**24,156,997**	**373,890,865**	**1,147.41**	**25.50%**

Non-Exempt Wells--Other

			Acre-Feet			2019 Monthly Production (gallons)														
File No.	**State #**	**Name**	**Hist. Permit**	**Oper. Permit**	**Total Permit**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**YTD**	**YTD ac-ft**	**% Permit**
		Bradley Ware	**0.00**	**160.00**	**160.00**	**1,303,405**	**1,596,671**	**1,075,310**	**1,498,916**	**1,368,575**	**782,043**	**2,606,811**	**3,258,514**	**2,997,833**	**1,531,502**	**2,541,641**	**3,486,610**	**24,047,831**	**73.80**	**46.13%**
N2-11-001G		Bradley B. Ware				944,969	1,075,309	619,118	1,238,235	1,205,650	684,288	1,889,938	2,150,619	2,085,449	1,075,310	1,792,183	2,541,641	**17,302,709**	**53.10**	**33.19%**
N2-11-002G		Bradley B. Ware				358,436	521,362	456,192	260,681	162,925	97,755	716,873	1,107,895	912,384	456,192	749,458	944,969	**6,745,122**	**20.70**	**12.94%**
		Not Aggregated																		
N2-07-014P		Barking Oaks		0.62	**0.62**	6,056	6,192	5,279	5,987	6,175	6,528	6,975	6,948	6,280	5,860	5,890	5,690	**73,860**	**0.23**	**37.10%**
N2-07-013G		D.R. Dorsey Properties		2.47	**2.47**	205	131	28	321	136	293	561	558	496	15,572	20,662	0	**38,963**	**0.12**	**4.86%**
N2-10-007P		Goode Towing		0.05	**0.05**	10	2,613	0	0	0	0	0	0	0	0	0	0	**2,623**	**0.01**	**20.00%**
N2-08-005G		Lone Star Paving		1.07	**1.07**	192	262	240	259	2,580	3,640	382	4,130	3,800	3,440	2,170	1,270	**22,365**	**0.07**	**6.54%**
N2-14-001G		Mikeska		100.00	**100.00**	0	0	0	0	0	8,146,286	0	8,146,286	0	0	0	0	**16,292,572**	**50.00**	**50.00%**
N2-06-007G		Misty Creek HOA		6.45	**6.45**	14,200	12,000	14,500	14,700	15,200	15,500	17,050	17,000	15,000	15,800	15,000	14,300	**180,250**	**0.55**	**8.53%**
N1-11-001P		Roy Rodriquez		0.55	**0.55**	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	**180,000**	**0.55**	**100.00%**
N1-04-001P		Stephen Spinn		0.56	**0.56**	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	**182,484**	**0.56**	**100.00%**
N2-16-001P		Strike 3 Bail Bonds		0.12	**0.12**	460	520	380	570	570	430	360	370	370	380	420	480	**5,310**	**0.02**	**16.67%**
N2-08-007G		Trio Investments		0.18	**0.18**	300	200	200	200	300	200	200	200	200	300	200	100	**2,600**	**0.01**	**5.56%**
N1-16-007P		Wells Fargo Bank		0.79	**0.79**	21,390	21,390	21,390	21,390	21,390	21,390	21,390	21,390	21,390	21,390	21,390	21,390	**256,680**	**0.79**	**100.00%**
		Strasburger Farms	**271.80**	**33.84**	**305.64**	**0**	**0**	**0**	**0**	**0**	**9,918,000**	**6,144,000**	**26,304,000**	**0**	**0**	**0**	**0**	**42,366,000**	**130.01**	**42.54%**
N2-02-030G		Strasburger Farms (#10)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-031G		Strasburger Farms (#11)				0	0	0	0	0	0	6,144,000	26,304,000	0	0	0	0	**32,448,000**	**99.58**	**32.58%**
N2-02-032G		Strasburger Farms (#15)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-033G		Strasburger Farms (#16)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-18-001P		Strasburger Farms (#2)				0	0	0	0	0	6,075,000	0	0	0	0	0	0	**6,075,000**	**18.64**	**6.10%**
N2-02-027G		Strasburger Farms (#4)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-12-002P		Strasburger Farms (#5)				0	0	0	0	0	3,843,000	0	0	0	0	0	0	**3,843,000**	**11.79**	**3.86%**
N2-02-029G		Strasburger Farms (#6)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
Totals:			**271.80**	**306.70**	**578.50**	**1,376,425**	**1,670,186**	**1,147,534**	**1,572,550**	**1,445,133**	**18,924,517**	**8,827,936**	**37,789,603**	**3,075,576**	**1,624,451**	**2,637,580**	**3,560,047**	**83,651,538**	**256.72**	**44.38%**

Appendix E

CUWCD Active Exempt Well Use Summary

As of: 1/30/2020

Aquifer	Total Active Registered Exempt Wells[3]	Registered Domestic Wells	Estimated Domestic Use Gallons/Day[1,2]	Estimated Domestic Use Ac-ft/Year[1,2]	Registered Stock Wells	Estimated Stock Use Gallons/Day[4]	Estimated Stock Use Ac-ft/Year[4]	Total Estimated Use Gallons/Day[7]	Total Estimated Exempt Well Use Ac-ft/Year[7]	MAG Reserved Exmpt Well Use
Glen Rose (Upper Trinity)	*498*	*405*	*118,487*	*133*	*93*	*80,352*	*90*	*198,839*	*223*	
Hensell (Middle Trinity)	*869*	*812*	*388,483*	*435*	*57*	*49,248*	*55*	*437,731*	*490*	
Hosston (Lower Trinity)	*138*	*127*	*37,155*	*42*	*11*	*9,504*	*11*	*46,659*	*52*	
Trinity (Total)[6]	**1,505**	**1,344**	**544,125**	**609**	**161**	**139,104**	**156**	**683,229**	**765**	**1,419**
Edwards BFZ	**841**	**707**	**206,840**	**232**	**134**	**115,776**	**130**	**322,616**	**361**	**825**
Edwards Equivalent	395	306	89,523	100	89	76,896	86	166,419	186	
Buda	28	15	4,388	5	13	11,232	13	15,620	17	
Lake Waco	8	3	878	1	5	4,320	5	5,198	6	
Austin Chalk	226	141	41,251	46	85	73,440	82	114,691	128	
Ozan	166	118	34,522	39	48	41,472	46	75,994	85	
Pecan Gap	67	44	12,873	14	23	19,872	22	32,745	37	
Kemp	15	11	3,218	4	4	3,456	4	6,674	7	
Alluvium	573	363	106,199	119	210	181,440	203	287,639	322	
Other[5]	**1,478**	**1,001**	**292,853**	**328**	**477**	**412,128**	**462**	**704,981**	**790**	
CUWCD Total Active	**3,824**	**3,052**	**1,043,817**	**1,169**	**772**	**667,008**	**747**	**1,710,825**	**1,916**	

1. Domestic use estimate assumes 106 gallons/person per day (USGS estimate of domestic use outside of a municipal water system) and 2.76 persons/houshold (U.S. Census Bureau, Population Estimates Program (PEP) July 1, 2019)

2. Benjamin G. Wherley, Ph.D. Associate Professor- Turfgrass Science & Ecology Dept. of Soil and Crop Sciences Texas A&M University estimate of 2,000ft^2 warm season turfgrass requires 38,855gal/yr/lawn or 106gal/day/lawn; "Ranchette" Avg. lawn size is 13,042ft^2 , 6.5X larger; 6.5 X 106gal/day/lawn= 689gal/day/lawn; ~217 "Ranchette" Middle Trinity Wells; 689 X 217=an additional 150,924gal/day/lawn; *65% increase in Middle Trinity exempt well use from previous estimate*

3. Exempt well use estimate factors out all plugged, capped, monitor and inactive wells in the database.

4. Source of stock water estimates is Texas Agrilife Extension @ 18 gallons water per day per cow. Livestock water use estimates are based on the 2017 Census of Agriculture, USDA National Agricultural Statistics Service. 36,868 cows / 771 stock wells= 48 cows/stock well; 48* 18gpd

5. The "Other" designation is the total of minor aquifer and alluvium source designation of the exempt wells.

6. Trinity Aquifer wells registered with unknown depth are assigned to the Middle Trinity per Board decision.

7. All estimates of groundwater use by exempt well owners is based on assumptions and scientific data, but by no means are they to be interpreted as recommended practices by C.U.W.C.D.

Appendix F

Edwards (BFZ) Aquifer Status Report – January 2020

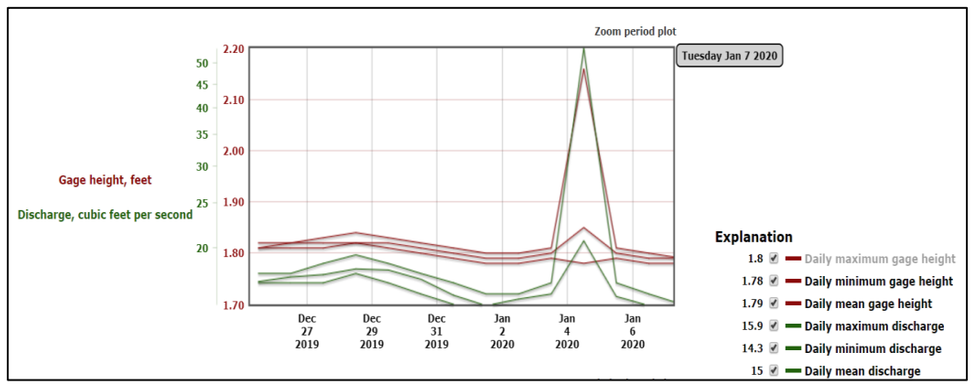
DFC Analysis Over Time (2000-Present) Modeled Available Groundwater				*HEUP and OP Permit Analysis Relative to the Modeled Available Groundwater*			*2019 YTD Prod. Jan - Dec 1,994.46 Ac-ft 79.45%*	*Pending Applications*		*Exempt Well Reservations*		
	DFC Adopted * Minimum Spring Flow	**Status of DFC** ** Current / Low	**MAG** *** Ac-ft	HEUP Ac-ft	OP Ac-ft	Total Permitted Ac-ft	**2018 Actual Production**	Available for Permitting Ac-ft	Pending Applications Ac-ft	Exempt Well Reservation Ac-ft	Exempt Well Use Estimation Ac-ft	Available Exempt Use Ac-ft
Edwards (BFZ) Aquifer	**100 Ac-ft** per month or **1.68 cfs**	**1398.35 Ac-ft** 1/7/2020 vs **220 Ac-ft** 08/20/2014	6469	2209.7	300.77	**2510.47**	**2,077.86 Ac-ft 82.79%**	3132.86	**1.32**	825	361	464

**Desired Future Conditions (DFC) established by Clearwater UWCD and approved by GMA8 and TWBD, is the description of how the aquifer should look in the future (50 years based on maintaining the Salado Spring Complex discharge during a repeat of drought conditions similar to the drought of record in the 1950's, under drought of record, a five-day average of discharge amounting to 200 ac-ft-month is preferred and 100 ac-ft-/month is the minimum acceptable spring flow. Spring flow is measured and estimated by the USGS Gage in Salado Creek located below the Salado Creek Spring Complex.*

***Status of the DFC is the estimated spring flow over a five-day average from the springs releasing artesian pressure from the Edwards BFZ Aquifer expressed as acre feet per month of spring flow into Salado Creek.*

****The Modeled Available Groundwater (MAG) is the estimated amount of water available for permitting assigned to Clearwater UWCD by the Executive Administrator of TWDB, based on the desired future conditions.*

BVEH Holdings, LLC N2-19-007P (1.32 ac-ft/yr)



CFS is measured continuously at the downstream gage with USGS developing the rating curve according to industry standards and maintaining the information for public access on the USGS website.

5 - day average for January 2nd – January 7th was 23.5 CFS = 1,398.35 ac-ft/month

5 - day average for December 2nd – December 7th was 18.66 CFS = 1,110.35 ac-ft/month

DFC Analysis Over Time (2000-Present) *Modeled Available Groundwater*			*HEUP and OP Permit Analysis* *Relative to the Modeled Available Groundwater*			*2019 YTD Total Prod.* *Jan - Dec* *1,147.43 Ac-ft* *25.50%*		*Pending Applications*		*Exempt Well Reservations*		
Trinity Aquifer (by layer)	**DFC Adopted *** **Average Drawdown** (by layer)	**MAG **** Ac-ft Current	**HEUP Ac-ft** (by layer)	**OP Ac-ft** (by layer)	**Total Permitted Ac-ft** (by layer)	**2018 YTD Prod.** (by layer)	**2019 YTD Prod.** (by layer)	**Available for Permitting Ac-ft** (by layer)	**Pending Applications Ac-ft** (by layer)	**Exempt Well Reserve Ac-ft** (by layer)	**2019 Exempt Well Use Estimate Ac-ft** (by layer)	**Available Exempt Use Ac-ft** (by layer)
Pawluxy	NA	0	0	0	**0**	0	0	0	0			0
Glen Rose (upper)	**-1.38 ft/yr** -83 ft/60 yrs	974	61.9	70.15	**132.05**	50.47	48.84	148.95	0	693	223	470
Hensell (middle)	**-2.28 ft/yr** -137 ft/60 yrs	1099	259.3	210.38	**469.68**	86.42	88.82	81.71	0	548	490	58
Hosston (lower)	**-5.50 ft/yr** -330 ft/60 yrs	7193	1181.4	2716.08	**3897.48**	1346.89	1009.77	3117.74	*** 1702.8	178	52	126
Total		**9266**	1502.6	2996.61	**4499.21**	1483.78 (33.02%)	1147.43 (25.50%)	3350.1	**1702.8**	1419	765	654

**Desired Future Conditions (DFC) is the description of how the aquifer should look in the future (60 years).*

***The Modeled Available Groundwater (MAG) is the estimated amount of water available for permitting assigned to Clearwater UWCD by the Executive Administrator of TWDB.*

****Pending applications in the Hosston Layer (Lower)*

Trinity Oasis LLC Operating Permit N2-13-002P (1702.8 ac-ft/yr) (this permit amount not reflected in Trinity Aquifer total permit amount; production contingent on TCEQ approval and plant construction

Appendix G

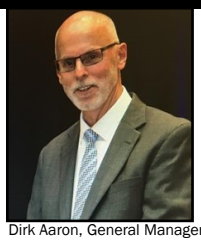
Clearwater Source

Clearwater Underground Water Conservation District

www.cuwcd.org

2019 Annual Newsletter | October 2019 | Volume 15, Issue 1

A Message from CUWCD



Dirk Aaron, General Manager
Clearwater UWCD

Clearwater Underground Water Conservation District has set the 19th Annual Water Bell County Water Symposium for November 6, 2019 in Killeen at the campus of Texas A&M University - Central Texas. The theme and objective of this year's event is "*Collaborative Discussion and Planning Water Needs for the Future*".

We have continued our annual event by focusing our efforts with Bell County Commissioners Court, Bell County Engineers Office, Texas AgriLife Extension Service in Bell County, and Texas A&M University Central Texas. We are also blessed to have such a beautiful campus and the newly named "Yowell Conference Center" hosting our event.

Dr. Robert Mace, Chief Water Policy Officer, with the Meadows Center for Water at Texas State University, will open the days event with an historical overview entitled: "*Whiskey's for Drinkin', Water's for Fightin': The Tumultuous History and Collaborative Future of Water Management Texas*." What's exciting about his presentation is that he will expand on how true peacemakers are the characters of the past that can be emulated for the future.

Dr. Mace has over 30 years of experience in hydrology, hydrogeology, stakeholder processes, and water policy, mostly in Texas. Before joining Texas State University in 2017, Robert worked at the Texas Water Development Board for 17 years ending his career there as the Deputy Executive Administrator for the Water Science & Conservation office. While at TWDB, Robert worked on understanding groundwater and surface water resources in Texas; advancing water conservation and innovative water technologies such as desalination, aquifer storage and recovery, reuse, and rainwater harvesting; and protecting Texans from floods.

Recent studies conducted by CUWCD addressed the unknowns concerning the depletion of artesian pressure in the Trinity Aquifer in the most southeastern portions of our County. Evidence is showing two things that are apparent: 1) Pumping from the Middle Trinity at current levels in both Bell and Williamson Counites is not sustainable and 2) the concern of our Board of Directors is that Williamson county is unmanaged (meaning they have no groundwater district). This has been a hot issue in the Capital this last session, but now is the time to talk, discuss, and move forward with shared resolutions.

Leland Gersbach, President
Clearwater UWCD

To address this issue, our own State Senator Dawn Buckingham, Representative Brad Buckley and Representative Hugh Shine carried legislation in both the house and senate to simply have the State fund a study to determine if the aquifer system sustainable. This issue will be discussed in a collaborative effort with our Legislators and the County Judges and Commissioners of both Bell and Williamson Counties. We know that a collaborative conversation is needed to move forward. Judge David Blackburn is leading the discussion and looks forward to the open dialogue with area wide leadership to discuss the many shared issues and proposed paths forward.

The current Chairman of the House Natural Resources Committee, Representative Lyle Larson, will give the noon Keynote Address this year following our panel discussions. Chairman Larson has a reputation and expectation that groundwater districts need to be science based and forward thinking on groundwater use. We look forward to his comments.

The afternoon session will have scientific discussions on managing groundwater. We will also hear from regional leadership and experts committed to supporting all the water related industries in Texas.

CUWCD, Board President, Leland Gersbach states that this event, fostered by local leaders the last 19 years, speaks to the issue itself "Water, what moves us forward or holds us back." He encourages all persons interested in our shared need to solve our water needs in the future to plan on attending. The beautiful conference center named after our dear friend, the late Bill Yowell, speaks to the issue. Mr. Yowell was a pioneer in Bell County that brought water to the needs of Ft. Hood, Killeen and all the surrounding areas. What better place than the Yowell Conference Center to address local concerns, local discernment, and local resolutions.

RSVP now by calling the Clearwater UWCD office at 254-933-0120 or emailing Tristin Smith tsmith@cuwcd.org.

Texas Well Owners Network Hires New Coordinator

Joel Pigg, TWON Project Coordinator

Dirk Aaron, General Manager for Clearwater UWCD, is excited that AgriLife Extension has hired one of our own from the Groundwater Community. Joel Pigg, from the Real-Edwards Conservation and Reclamation District in Leakey, is combining his Texas A&M AgriLife Extension Service and water conservation district experiences in his new position as the Texas Well Owner Network, or TWON, coordinator. The TWON program, http://twon.tamu.edu/ , provides private water well screenings and wellhead protection educational trainings to private water well managers.

"I'm very excited to be back in the soil and crop sciences department after spending the last 12 years in Real County," Pigg said. "I look forward to working with our AgriLife Extension agents, groundwater district personnel and private water well owners across the state to help them learn about water quality and help them protect this valuable resource."

Pigg, a native of Brownfield, earned his bachelor's degree from Southwestern University and a master's degree from Texas Tech University in Lubbock. He worked for eight years as an AgriLife Extension associate in the soil and crop sciences department before spending almost four years as an AgriLife Extension county agent in Real County.

Dirk Aaron also has firsthand knowledge of Joel. He and I first worked together in Brownfield Texas in 1987-92 managing the Terry County Extension Program and providing support to the local groundwater conservation district there as well. Joel is one of the most qualified individuals in our state to expand the educational programs to all parts of Texas. He knows is facts and is a storied educator, stressed Aaron.

He has spent the past eight years as the general manager of the Real-Edwards Conservation and Reclamation District in Leakey, vice chair of the Plateau Regional Water Planning Group and coordinator and presiding officer for Groundwater Management Area No. 7.

Clearwater UWCD is excited to see Pigg as the leader knowing he is familiar with Groundwater Resources and Management. TWON will be and exhibitor at the 2019 Bell County Water Symposium on November 6th at Texas A&M University Central Texas. Aaron affirmed that "Plans are to continue to holding TWON events in Bell County with our Partners at Texas AgriLife Extension Service".

Board of Directors

Leland Gersbach - Precinct 1
2013-Present (President)

Jody Williams - Precinct 3
2018-Present (Director)

Gary Young - Precinct 2
2014-Present (Secretary)

Scott Brooks - Precinct 4
2018-Present (Director)

David Cole - At large
2013-Present (Vice-President)

Mission Statement

To implement an efficient, economical, and environmentally sound groundwater management program to protect and enhance the water resources of the District.

Water Quality Screening

The District's in-house lab offers registered well owners free screening for common constituents and bacteria. Annual screening is recommended.

Who and What is the Texas Well Owner Network

The Texas Well Owner Network (TWON) is an educational training program developed by the Texas A&M AgriLife Extension Service in the Departments of Soil & Crop Sciences and Biological & Agricultural Engineering in partnership with the Texas Water Resource Institute. Funded by the TSSWCB under CWA Section 319(h), TWON trains well owners regarding water quality BMPs for protecting their wells and surface waters, which will avert off-site transport of contaminants such as bacteria and nitrates, two of the most common contaminants in private water wells in Texas, as well as the most frequent cause of stream impairment or concern. TWON works with other project partners to support current watershed protection planning and implementation efforts.

The Texas Well Owner Network is delivered in two forms including "*Well Educated*," which is a day long course and "*Well Informed*," which is an hour long program. The "*Well Educated*" course covers aquifers, household wells, improving and protecting water resources, groundwater resources, septic system maintenance, well maintenance and construction, water quality and water treatment. The "*Well-Informed*" program is one hour in length and focuses on wellhead protection and recommendations for remediating well contamination. For both types of programs, well owners can bring in water samples for screening for fecal coliform bacteria, nitrate-nitrogen and salinity.

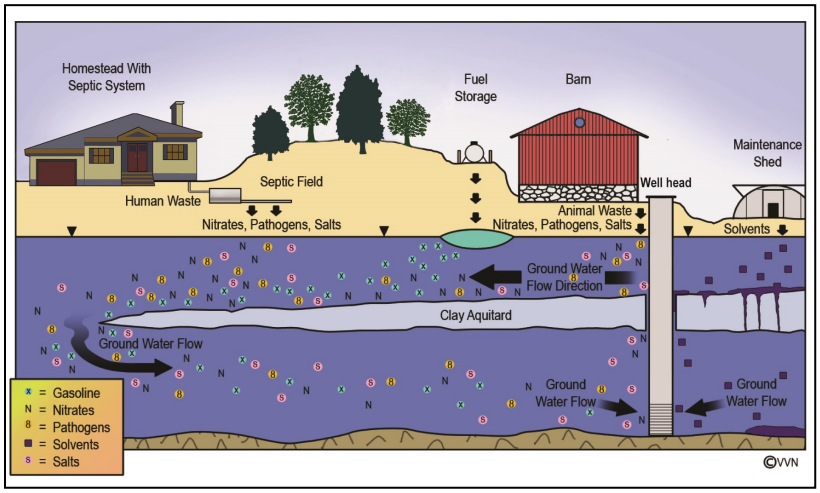
The TWON curriculum is compiled into a full-color handbook that includes course material, as well as a comprehensive glossary of terms and three appendices providing detailed information on federal, state, and local water quality agencies and organizations; national primary drinking water standards with maximum contaminant levels (MCL) and potential health effects listed; and an index of water issues and their symptoms, possible sources and treatment options. The program is delivered through training events by a team of professionals using high-quality visual aids and hands-on teaching stations. Those team members include Joel Pigg, TWON Project Coordinator; Dr. Diane Boellstorff, Associate Professor and State Water Resources Specialist; John W. Smith, Program Specialist-Water; and Ryan Gerlich, Extension Program Specialist.

To date, thirty "Well Educated" and sixty-three "Well Informed" training programs have been conducted. In all, more than 9,500 private water well owners have been trained and/or their samples have been screened. Results from pre and post-test evaluations indicate that knowledge was increased for 100% of the participants. On average, participants increased their program test scores from 52% pre-program to 79% post-program. When asked how much the program was worth to them personally, participants indicated an average of about $786 per participant, for a total of $7,467,000 across all participants.

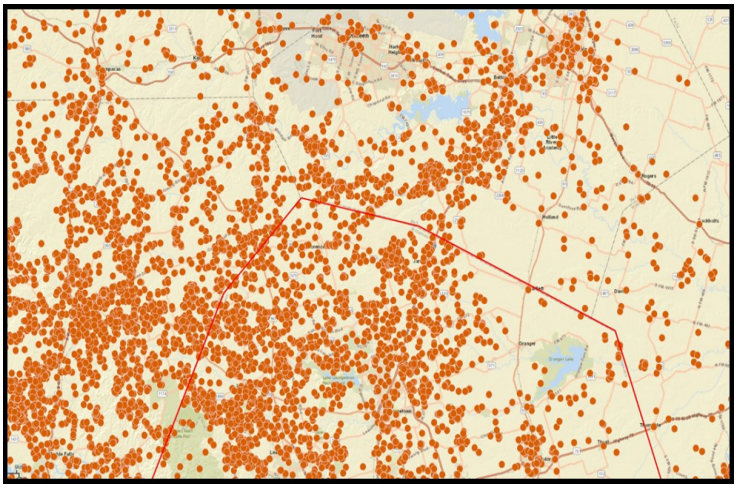
The TWON Website http://twon.tamu.edu contains a copy of the training manual along with many fact sheets and Texas A&M AgriLife Extension publications that are relevant to water issues across the State of Texas.

Feel free to contact Joel Pigg in the Department of Soil & Crop Sciences at Texas A&M University: 354-B Heep Center, College Station, TX 77843-2474 or by phone 979-845-1461 or on my cell 830-275-3866.

Joel Pigg, Project Coordinator
Texas Well Owner Network

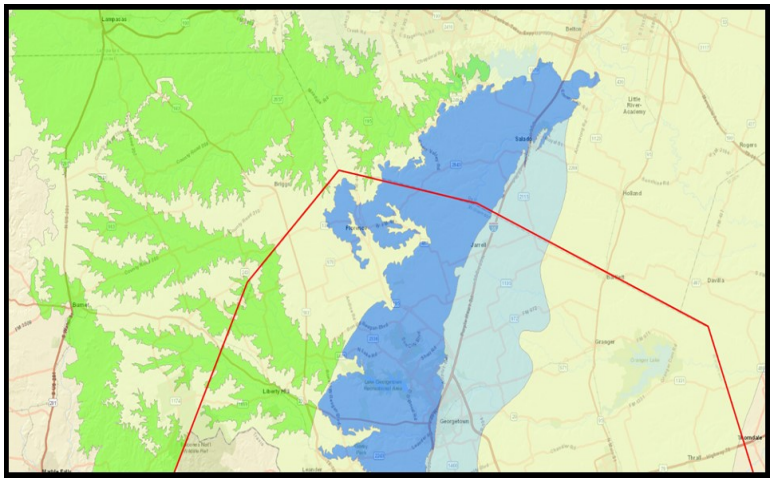


A Picture Speaks a Thousand Words



Do we have a large number of wells in Bell, Williamson, Burnet and Coryell Counties?

The above data is from the Texas Water Development Board's Water Well Driller Reports, a public data base for all of Texas.



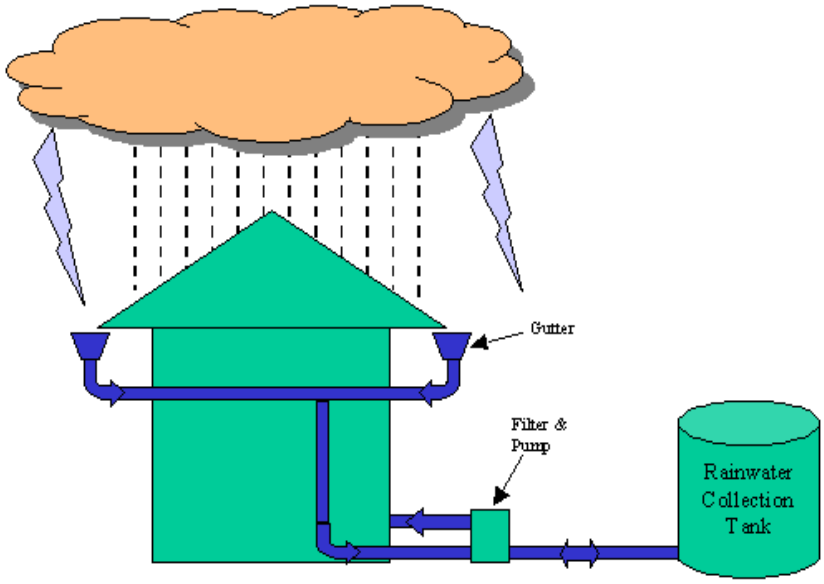
The source aquifers are the Edwards BFZ (Blue/Blue) and the Trinity (Green/Green). The map illustrates the complex and variable system of underground water resources shared by more than just a few counties (Bell. Burnet, Coryell, Milam and Williamson Counties).

Introduction to Rainwater Collection: Controlling Your Water Supply Destiny

There will always be homeowners who want to live away from the bustle of cities and public utility infrastructure. A dependable source for household water supplies is probably one of the most important issues for these homeowners.

Groundwater wells are expensive to drill and maintain, are difficult to monitor water availability and quality, may have water groundwater rights restrictions and can be impacted by other adjacent landowner's water wells.

A rainwater collection system can supplement or totally supply the household needs of these rural homes, is secure, able to be easily monitored, has no restrictions and cannot be impacted by adjacent landowners. The system would have a charging connection for delivered water in case of serious drought.



Rainwater Collection Overview

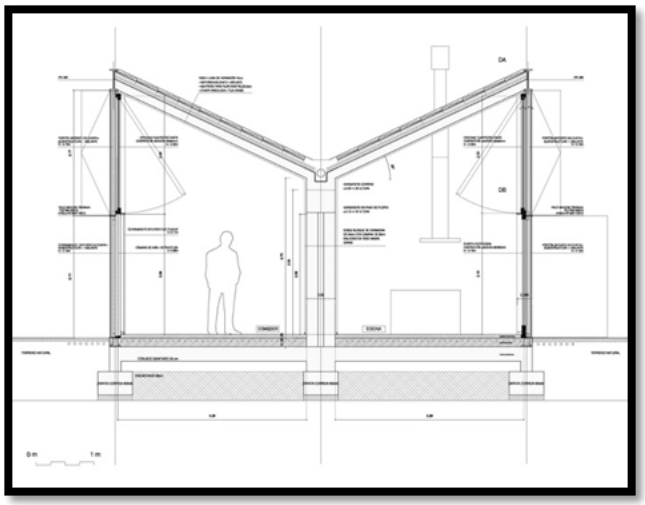
The rainwater collection system storage also provides a reliable emergency water supply and a local fire-fighting resource. Rainwater collection systems can be used for both potable and non-potable water demands. For potable water systems, metal or tile roofs are required. The collected rainwater passes through micron filters and ultraviolet light or ozone systems for purification, no chlorination is required. Collection roofs systems include the home, garage and/or utility buildings.

As a rule of thumb, 0.6 gallons can be collected for every square foot of collection area with a one inch rain. A 1,000 square for roof therefore collects 600 gallons of water. Rainfalls less than 0.1 inches generally do not contribute to storage.

After the roof, storage is the most expensive component of a rainwater collection system. Metal, fiberglass, concrete and certain plastic storage tanks are acceptable. A minimum storage is 5,000 gallons per person for a household potable water supply. Assuming 125 gallons per day for a 5,000 gallon tank, this would supply one person 40 days of water with no additional rainfall. Larger storage is recommended.

Building a new home Checkout: Bartoloacci blog an inspiration to build a home that Catches the Rain (https://architizer.com/blog/inspiration/collections/rainwater-collection/)

Architectural Opportunities must include Rainwater Catchment Systems:



This house is one of many illustrated by James Bartolacci, at his blog with design focused on rainwater-collection.

Allan R. Standen, P.G., ARS LLC
(18 years with 100% rainwater only supply)

4-H Water Ambassadors, Industry Partnership Shows Promise for our Water Future

WATER. "I don't have to explain you its vital role (literally, becoming non-renewable resource in some part of the country) in our daily lives as you live through it within Clearwater Underground Water Conservation District (CUWCD). Conservation of this irreplaceable and precious resource is in the minds of water managers, legislators, county agents, city managers, water users, community leaders and everyone who lives and works in the Bell County Area," says Dr. Askarali Karimov, Technical Director with KPA, LP in Temple.

He further states, "education through public outreach has always been and is, in the core of the water conservation and management discussions and the main instrument we utilize to cater awareness to the public on the latest research in groundwater quantity or quality as well as the latest legislature and its impacts on our communities and the state."

The following is Dr. Karimov's thoughts as he describes the challenges we are faced with in Texas. "Often, it is difficult to change our mindsets and attitudes towards water conservation and management. I worked as Extension and Research Associate at Texas A&M University System in the last 15 years and gained tremendous experience. After conducting many educational and outreach programs as well as design and implementation of water quality and quantity related engineering projects throughout Texas, I came to conclusion that we must focus our resources and attention to train and educate our youth and equip them with all the tools necessary to prepare them managing our water resources."

The Texas 4-H Water Ambassador program has been created to such needs and develop next generation of water leaders for Texas. Dr. Karimov exalts the program by saying, "there is no such program in the nation as Water Ambassadors to address State's water conservation and management issues."

Dr. Karimov, known as Askar to his friends, was recruited and hired by Rick Kasberg and David Patrick at Kasberg, Patrick & Associates, LP, engineering and consultancy firm in Temple back in May 2019 and has been working and living in Bell County ever since. His son, Jahongir Karim is a Water Ambassador and his daughter will apply and hopefully be selected to the program next year.

KPA is going to be the first engineering company to be a permanent legacy sponsor of the program and Askar will continue serving as a volunteer in the program. He and his family enjoy being part of this program and living in Bell County which makes it more special.

David Smith, 4-H2O Program Coordinator with Texas A&M AgriLife Extension Service, is the core leader of the Texas 4-H Water Ambassador Program and recently reported to the Clearwater UWCD Board of Directors the following:

Now in its third year, the Texas 4-H Water Ambassador Program has grown to include 74 youth representing 43 counties across the state, including three youth in Bell County. Luke Read, a junior at Belton High School, is serving his second year as water ambassador, while Sarah Wood (homeschooled sophomore) and Jahongir Karim (freshman at Belton High) have started their first year of service.

This past summer, Luke participated in the Tier II 4-H2O Leadership Academy where he toured the Texas Gulf Coast and learned about the water issues unique to marine ecosystems, bays and estuaries. Sarah and Jahongir attended the Tier I 4-H2O Academy which focused on groundwater and surface water rights, water districts, water law, and water resources in the central, southwest and High Plains region of Texas. Luke participated in this tour during his first year as water ambassador.

As ambassadors, youth commit to educating others in their communities about relevant water issues, such as conservation and protection. Since the program began in 2017, water ambassadors have reported more than 2,200 hours of service and have reach nearly 40,000 youth and adults statewide. Many of these service opportunities are a collaboration with local groundwater districts and others who have existing education outreach programs and have on hand educational exhibits, activities and resources that they can use.

Recently, eight water ambassadors representing Bell, Williamson, Milam, McLennan and Hill Counties, as well as Whitney Grantham (Bell County Extension Agent) and Shelley Franklin (Williamson County Extension Agent) met with Dirk Aaron at the Clearwater UWCD office to learn about the District's water education resources, such as its mobile aquifer trailer and rainfall simulator. Discussion also included on future collaboration between the District and regional water ambassadors.

Due in large part to the support of the water industry, particularly groundwater districts such as Clearwater, the 4-H Water Ambassadors Program is making a significant impact and growing a new generation of water leaders. Existing state water leaders are starting to take notice. In May 2019 the Program was named 'winner' of the prestigious Texas Environmental Excellence Award by the Texas Commission on Environmental Quality. Thanks to Clearwater UWCD for your continued support of this program!

David W. Smith
4-H2O Program Coordinator
Extension Program Specialist II
Texas A&M AgriLife Extension Service

Askarali K Karimov, PhD
Technical Director
Water Resources & Hydrologic Engineering
Kasberg, Patrick & Associates, LP

Top row (L to R): David Cole, Gary Young, Scott Brooks, Jody Williams.
Bottom row (L to R): David Smith, Leland Gersbach, Sarah Wood, Jahongir Karim, Luke Reed.

David and Dirk presented Water Ambassador Program at the KPA Engineers head office in Temple, TX on September 27, 2019.

Groundwater Conservation Districts FAQs

What is a Groundwater Conservation District?

GCDs are political subdivisions of the state created to protect and balance private groundwater interests with the conservation, preservation, protection, recharging, and prevention of waste of groundwater, and the control of subsidence caused by withdrawal.

What does a GCD do?

Establish rules for the spacing and drilling of all water wells
Consider and permit non-exempt water wells
Maintain records of non-exempt wells in a district
Submit management plans to Texas Water Development Board for approval
Collaborate regionally in joint planning for the establishment of DFCs
Collect water level and water quality data on aquifers
Educate stakeholders on water conservation
Work to prevent harm to the aquifer due to pumping or contamination

How do GCDs allocate their budgets?

Education & Outreach
Science & Research
Operations
Conservation
Regional Planning

How many GCDs are there in Texas?

Currently, there are **98** GCDs plus 2 subsidence districts.

What rules must a GCD follow?

GCDs are governed by Chapter 36 of the Texas Water Code. As political subdivisions of the state, they are also subject to Chapter 49 of the Texas Administrative Code. Based on the rules established by the State, each GCD creates policies to accomplish the goals of their District.

Do I have to register my well with my GCD?

Yes, state law requires all wells to be registered with the GCD. This does not mean that all wells require a permit. All domestic wells and livestock wells that produce less than 25,000 gallons per day are exempt from permits. A GCD has the ability to exempt others in their rules.

More GCD FAQs

What is a management plan?

A management plan outlines a GCD's goals and course of action to achieve those goals. The management plan is submitted to TWDB for approval, and rules necessary to implement the management plan are adopted by each district.

What is a Desired Future Condition?

The desired future condition is a metric that is established during the joint planning process by GCDs in a common Groundwater Management Area (GMA). The DFCs provide for consistency in groundwater management in the GMA and a balance between groundwater protection and production.

How are GCDs funded?

GCDs are funded through property taxes, permitting fees and/or usage fees.

Groundwater Terms

Aquifer

An underground geological formation able to store and yield water in useable amounts. Aquifers in Texas can consist of sand, gravel, limestone, granite, and many other rock types that have pores or spaces for water to pass through.

Aquitard

An aquitard, or confining layer, is a zone within the earth that restricts the flow of groundwater.

Total Dissolved Solids (TDS)

TDS refers to the total concentration of dissolved constituents in solution. A TDS level of less than 1000 ppm is often considered freshwater, although many Texans' drinking water has a higher TDS.

Cone of Depression

A cone of depression is a conically shaped area of decreased water level (or pressure) that occurs when water is withdrawn from an aquifer. If wells are too close to each other, these cones may overlap and cause interference resulting in abnormally low water levels in those wells. In areas that withdraw more water than is recharged or flows to that area, a semi-permanent regional cone of depression may occur.

Abandoned Wells & Water Quality

There is a high environmental risk associated with abandoned or deteriorated wells, as they are a direct conduit from the surface to our groundwater resources. Because of this risk, it is highly recommended to have abandoned or deteriorated wells plugged. Some GCDs have have established programs to assist landowners in plugging abandoned wells.

How often should I have my well water tested?

It is recommended that well owners have their water professionally tested annually or when an observed change in water quality occurs.

Who can disinfect my well water?

It is recommend to contact a licensed water well driller or a pump installer to professionally disinfect your well.

Salado Salamander Update for 2019

The Texas Fish and Wildlife Conservation Office (TXFWCO); branch of the U.S. Fish and Wildlife Service) began monitoring the Salado salamander in 2015. The Salado salamanders in Bell County are at the northern edge of the range for Eurycea spp. in Texas. Monitoring sites include the downtown Salado springs (Anderson, Big Boiling, Little Bubbly, and Side springs) and at Robertson Springs in collaboration with Texas Parks and Wildlife Department. This year we have added monitoring at Solana Ranch which has a stable population of Salado salamanders. After five years of monitoring, more information about the about the species is known than in previous years.

Data from the monitoring work indicate Salado salamanders associate with cobble and gravel substrates and occasionally within watercress flowing over these areas. The Salado salamanders known habitat expanded in 2015 when they were found at Anderson Spring, the most downstream spring in the downtown area. Although know to be within the same flow path as Big Boiling, salamanders had not been previously captured from Anderson Spring. Finding other springs with Salado salamanders is one of the long term goals for this monitoring effort.

Since 2015, 151 Salado salamanders have been documented at Anderson, Side, and Big Boiling springs, along with numerous spring outlets from Robertson Springs. Although the species can be found on the surface, surface numbers are low when compared to other sites to the south of this area. Forty six percent of the 151 salamanders were caught exiting the spring outlets, not on the surface. As with most Eurycea spp. in Texas, the population lives underground in the aquifer.

The TXFWCO is collaborating with Dr. Chris Nice of Texas State University on a population genetics project processing the genomic data of 180 salamanders for approximately 10,000 genomic markers. The data will provide information on how to manage, and if need be, prioritize the springs regarding salamanders. This project will determine which spring sites contribute more to the diversity of the species, providing more ecological resiliency. Data will be used to quantify patterns of gene flow between spring sites and provide rough estimates of population size overall and within spring sites. .

We are grateful for the partnership and support from the Coalition (Clearwater Underground Water Conservation District, Bell County, Village of Salado, and the Salado Water Supply Corporation).

Pete Diaz, Aquatic Biologist
U.S. Fish and Wildlife Service

Why Does My Well Water Smell Like Rotten Eggs?

The question is often coming from private well owners across Bell County who have reached out to us for an explanation. One famous well driller's answer has been "it is what it is!" While that answer is justifiable it does not explain why the water smells or how to get rid of the smell.

Why does my water suddenly smell like rotten eggs? The reason your water probably smells like rotten eggs is because it contains some traces of hydrogen sulfide. Even extremely small amounts of hydrogen sulfide can cause your water to have quite the odorous smell. In most cases this smell occurs due to a build-up of hydrogen sulfide in your hot water heater. Hydrogen sulfide gas can result from a number of different sources. It most often occurs naturally in our source aquifer known as the Trinity. It can also be produced by certain sulfur bacteria in the groundwater, in the well, or in the water distribution system.

Then how can I remove the hydrogen sulfide from my well water? Methods to reduce or remove hydrogen sulfide include activated carbon filtration, shock chlorination, ion exchange, manganese greensand filtration, oxidation, oxidizing filtration, ozone treatment, and water heater modification. Shock treatment of your well on a regular basis can be helpful.

For more information on shock chlorination, go to: *https://agrilifeextension.tamu.edu/library/water/shock-chlorination-of-wells/* and read the article authored by Dr. Mark McFarland and Dr. Monty Dozier with Texas A&M AgriLife Extension.

Join the District for the 19th Annual

Bell County Water Symposium

November 6, 2019 8:00 A.M. --- 4:00P.M.
Texas A&M University - Central Texas
This event is free but requires RSVP by November 1st

"Collaborative Discussion and Planning Water Needs for the Future"

8:00 a.m. - Registration

Welcome, Introduction & Theme of the Day
Honorable David Blackburn, Bell County Judge
Leland Gersbach, Board President, Clearwater UWCD

State of the District: Successes, Concerns and Actions
Dirk Aaron, General Manager, Clearwater UWCD

Whiskey's for Drinkin', Water's for Fightin': The Tumultuous History and Collaborative Future of Water Management Texas
Dr. Robert Mace, Interim Executive Director & Chief Water Policy Officer, Texas State University

Texas Water Development Board Update: Science, Infrastructure & Support
John Dupnik, Deputy Executive Administrator, Office of Water Science and Conservation, TWDB

Bell and Williamson County Leadership Panel
Moderator: Leah Martinsson, Executive Director, TAGD
Honorable David Blackburn, Bell County Judge
Honorable Bill Gravell, Jr., Williamson County Judge
Commissioner Valerie Covey, Williamson County Commissioner, Pct. 3
Commissioner Bobby Whitson, Bell County Commissioner, Pct. 2

Bell and Burnett County Legislative Panel
Moderator: Leah Martinsson, Executive Director, TAGD
Senator Dawn Buckingham, District 24
Representative Brad Buckley, District 54
Representative Hugh Shine, District 55
Representative Terry Wilson, District 20

12:00 p.m. - Lunch

Welcome Address, Legislative Update and Special Recognitions

Representative Lyle Larson, Chairman of House Natural Resource Committee, District 122

Caring, Collaboration and Outreach for the Future - Hill County Alliance
Charlie Flatten, Water Policy Program Manager, Hill County Alliance

State of the Brazos River Basin and BRA
David Collinsworth, General Manager/CEO, BRA

Groundwater Science for Sound Policy
Dr. Joe Yelderman, P.G., Professor of Geology, Baylor University

GCD Case Study of Management and Policy
Doug Shaw, General Manager, Upper Trinity GCD
Dirk Aaron, General Manager, Clearwater UWCD

Event Sponsors

Bell County Engineers Office
Lloyd-Gosselink Attorneys at Law
HALFF Associates
LRE Water, LLC
KPA Engineers
WSP USA
Clearwater Underground Water Conservation District
Texas AgriLife Extension Service
Texas A&M University - Central Texas

Clearwater Underground Water Conservation District
Every drop counts!
P.O. Box 1989
Belton, TX 76513

Summer Internship...the So What?

This is the final fall of my time at Texas Tech university in Lubbock Texas. I come from many parts of the Midwestern United States. I graduated high school from a farmer community in Marion Texas.

For 3 months this summer I completed an internship at your groundwater conservation district in Bell County. Clearwater Underground Water Conservation District, otherwise known as CUWCD, in Belton. CUWCD is responsible for the management of groundwater in Bell County.

According to General Manager, Dirk Aaron, their mission is to, "develop and implement an efficient, economical and environmentally sound groundwater management program to protect and enhance the water resources of the district." This internship has been instrumental in my college career and has provided invaluable knowledge that will help me in the future as I potentially pursue jurisprudence degree in Water Law.

The elected Board of Directors supported the internship financially but had specific expectations lined out by Mr. Aaron. Three main goals and specific tasks were outlined for me by Clearwater Underground Water Conservation District as follows:

1. Develop Communication platform such as Mail Chimp or alternative option based on my current research and recommendation.
2. Assist in developing water conservation monthly conservation bullets with CUWCD logo in place. (sources TWDB, TWCA and Texas Water Foundation/ TAGD)
3. Research the Water Education and Outreach Communities in Texas and develop social media recommendation for ongoing GM plug and play efforts.

To accomplish these prompted goals and tasks, I used numerous resources such as Mail Chimp Marketing Platform, TWDB, TWCA, social media outlets (Twitter and Instagram), US Drought Monitor, TCEQ, CUWCD and many other resources to gather as much pertinent information that could be included in our monthly electronic newsletter that would be an outreach source to our general public and water conservation enthusiasts.

I was also privileged to travel with the Clearwater staff to educational learning events that focused on youth knowledge in water, environment and basic science to increase the awareness of water conservation. I also was very active in meetings, seminars and conferences across the state to get a grasp on the water industry and network with business professionals that have the same goals at CUWCD that will directly correlate with my future pursuing a law degree in water law.

The final report to the Board of Directors was presented on my behalf on August 28, 2019 in Belton. My report, findings and conclusions can be viewed on Clearwater's website http://www.cuwcd.org

When you read my formal report you will find that I have learned a great deal of knowledge while I have been here but there are three taken away points from this experience that I was not aware of when I started and were standout findings that young professionals need to be engaged with in the context of Water!

1. The disconnect of information between the legislators, water experts, and the general public is so vast and disturbing, necessitating the need for engagement of peacemakers. We need a new generation of experts willing to tackle the problems with engineered solutions that direct policy.
2. The political divide in the Texas Legislature was shocking. It was eye-opening to see politicians be combative towards issues when they refuse to learn all the angles of the concept or understand the real facts of the situation instead, they tended to lean towards convenient facts, an emotional view or stance on the matter that was simply defensive.
3. The push and desire to store and conserve is a battle when times are plentiful. As many have realized, the last few months we have received more moisture than we have received in a very long time. Practices like Aquifer Storage and Recovery otherwise known as ASR are unique and innovative ways to store water that we can be using when we are in severe drought.

In the future, I believe that Clearwater will stay engaged on social media, especially Twitter, as well as keep the electronic newsletter updated as much as possible. Twitter serves as a platform that they can push out real-time news to the general public. Staying engaged with help merge the gap between our experts and our citizens.

Reagan Langemeier, Summer Intern
Texas Tech University (Class of 2019)

Site visit to SAWS ARS facility in Bexar and Wilson Counties.

Appendix H

CUWCD 2019 Education and Outreach Events

Date	People	Event Information	Presentation	Booth
1/22/19	225	Texas A&M AgriLife Crops Conference		X
2/20/19	120	Saegert Elementary S.M.A.R.T. Day	X	X
3/7/19	50	Miller Heights Elementary Career Day	X	X
3/29/19	60	Nolan Creek School Earth Day Event	X	X
4/5/19	150	Month of the Military Child Earth Fest (Fort Hood)		X
4/12/19	220	Fort Hood Earth Day	X	X
4/15/19	12	Committee of 12 (C12)	X	
4/16/19	37	Killeen Lions Club	X	
5/29/19	25	Blackland Research & Extension Field Day		X
5/31/19	133	Killeen Rotary Club	X	
6/12/19	570	STEAM Day Event at Harker Heights Library	X	X
7/16/19	22	Texas A&M - Central Texas STEM Camp	X	X
7/19/19	50	Killeen Rotary Club	X	X
8/28/19	20	Soil Regen Forum		X
8/29/19	140	Soil Regen Forum	X	
9/19/19	65	Texas A&M AgriLife Conservation Expo		X
10/19/19	65	Bell County Master Gardener's Plant Sale		X
10/21/19	125	North Belton Middle School	X	X
10/22/19	107	North Belton Middle School	X	X
10/31/19	140	North Belton Middle School	X	X
11/6/19	157	19th Annual Bell County Water Symposium	X	X
Total reach	**2,493**			

Appendix I

Results of Groundwater Samples in CUWCD Lab

Test Date	District Well #	Lattitude	Longitude	Elevation	Depth (ft)	Aquifer[2]	Coliform Bacteria[3]	Ecoli	Conductivity (µs/cm)	Total Dissolved Solids	Salinity (mg/L)	pH	Alkalinity (mg/L)	Hardness (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphate (mg/L)	Sulfate[4] (mg/L)	Fluoride[4] (mg/L)
FY19																			
1/8/2019	E-02-2640G	30.934903	-97.408948	590.29	50	Alluvium	Presence	Presence	720	351		8.1	300	340	-0.004	13.2	0.07	19	0.27
1/21/2019	E-18-016P	30.936491	-97.597305	700.45	870	Middle Trinity	Not Tested	Not Tested	1488	739		8.98	360	80	0.002	9.9	0.09	195	2.5
1/21/2019	E-18-052P	30.945469	-97.802863	891.09	570	Middle Trinity	Not Tested	Not Tested	1602	802		8.84	400	80	0.005	6.4	0.06	152	5
1/24/2019	N1-16-004P	31.02424	-97.666743	713.86	595	Middle Trinity	Not Tested	Not Tested	1952	978		8.89	360	120	0.004	6.4	0.12	468	5.5
1/24/2019	E-18-095P	30.9286111	-97.785277	861.83	500	Middle Trinity	Not Tested	Not Tested	1647	826		8.42	340	220	0.274	11	0.2	472	4
1/25/2019	E-06-045P	30.97381	-97.48211	596.17	210	Edwards (BFZ)	Absence	Absence	2220	1123		8.69	380	100	0.003	1.21	0	370	5
2/13/2019	E-10-051P	30.941054	-97.607789	726.4	870	Middle Trinity	Absence	Absence	1371	680		9.08	360	120	0.005	0.733	0.01	184	2.1
2/26/2019	E-18-049P	30.965275	-97.791174	818.84	515	Middle Trinity	Not Tested	Not Tested	2172	1100		8.79	400	100	0.022	0.133	0.06	213	6
2/27/2019	E-03-329P	30.923566	-97.587281	707.47	900	Middle Trinity	Not Tested	Not Tested	1337	665		8.96	340	80	0.009	1.26	0.66	163	2.65
2/28/2019	E-17-061P	30.989625	-97.492237	534.66	120	Edwards (BFZ)	Not Tested	Not Tested	786	384		8.34	300	360	0.006	0	0.09	63	0
2/28/2019	E-19-027P	30.9454	-97.59301	727.47	140	Edwards (BFZ)	Not Tested	Not Tested	734	358		7.84	360	320	0.003	12.4	0.24	10	0.5
2/28/2019	E-19-026P	30.94128	-97.58615	701.51	120	Edwards (BFZ)	Not Tested	Not Tested	739	411		7.98	400	420	0.006	9.4	0.33	15	0.5
3/18/2019	E-18-107P	30.883003	-97.607774	753.5	140	Edwards (BFZ)	Not Tested	Not Tested	552	271		8.14	280	260	0.007	0.095	0.24	19	0.1
3/19/2019	E-18-108P	30.946559	-97.80302	893.14	635	Middle Trinity	Not Tested	Not Tested	1899	959		8.99	460	40	0.003	0.068	0.61	87	5.9
3/26/2019	E-02-049P	30.924348	-97.579208	694.35	120	Edwards (BFZ)	Absence	Absence	724	352		8.54	320	360	0.003	5.18	0.15	18	0.2
4/9/2019	E-18-032P	30.946428	-97.532952	564.23	80	Edwards (BFZ)	Not Tested	Not Tested	728	357		8.15	340	380	0.002	3.5	0.28	19	2.7
4/9/2019	E-18-093P	30.990222	-97.433841	484.26	440	Edwards (BFZ)	Not Tested	Not Tested	2106	1064		7.83	440	400	0.4	300	0	59	0
4/30/2019	E-15-059P	30.914851	-97.609598	665.24	800	Middle Trinity	Not Tested	Not Tested	1342	667		9.09	320	80	0.007	1.06	0.01	148	2.65
5/13/2019	M-19-002P	30.965058	-97.788392	814.3	467	Middle Trinity	Not Tested	Not Tested	1363	677		9.65	180	40	0.02	35.6	0.57	182	3.6
5/13/2019	E-18-094P	30.938629	-97.590658	697.71	900	Middle Trinity	Not Tested	Not Tested	1435	713		8.92	340	80	0.004	3.9	0.65	179	2.4
5/13/2019	E-19-052P	30.93848	-97.59362	677.84	860	Middle Trinity	Not Tested	Not Tested	2188	1106		8.33	420	160	0.005	14.5	0.51	447	0
5/13/2019	E-19-033P	30.911925	-97.669563	877.68	840	Middle Trinity	Not Tested	Not Tested	1532	767		8.33	320	120	0	6.2	0.42	290	2
5/15/2019	E-19-038P	30.972992	-97.483887	576.83	200	Edwards (BFZ)	Not Tested	Not Tested	2149	1084		8.72	380	100	0.003	12.6	0.51	337	5.9
5/15/2019	E-14-035P	30.974342	-97.484517	582.3	220	Edwards (BFZ)	Not Tested	Not Tested	1890	950		8.91	360	140	0.012	4.3	0.6	298	4.6
5/21/2019	E-02-3254G	30.900815	-97.694857	852.94	760	Middle Trinity	Presence	Presence	3360	1730		8.41	420	340	0.004	2.15	0.01	1015	6.36
5/22/2019	N1-18-003P	31.09707	-97.650341	764.65	605	Middle Trinity	Not Tested	Not Tested	545	265		10.51	120	40	0	0.059	0.36	51	0
6/6/2019	E-12-014P	31.01826	-97.489361	578.22	160	Edwards (BFZ)	Absence	Absence											
6/7/2019	E-16-063GU	30.974858	-97.806488	825.12	445	Middle Trinity	Absence	Absence	1451	723		8.91	85	100	0.016	0.69	0	197	4.08
6/10/2019	E-02-1149G	31.024643	-97.697798	797.53	520	Middle Trinity	Absence	Absence	749	373		8.15	280	340	0.003	28.7	0.38	69	0.5
6/10/2019	M-19-001P	30.965003	-97.788677	815.37	637	Lower Trinity	Not Tested	Not Tested	2580	1312		8.31	460	80	0.007	3.2	0.5	140	5
6/11/2019	E-19-051P	30.881601	-97.611559	737.09	887	Middle Trinity	Not Tested	Not Tested	1100	540		9.11	340	80	0.003	0.021	0.01	94	3.95
6/14/2019	E-19-034P	30.88779	-97.60014	743.52	910	Middle Trinity	Not Tested	Not Tested	1132	560		8.85	320	80	0.009	0.004	0.04	102	2.45
6/17/2019	E-19-031P	30.971247	-97.803921	822.52	635	Lower Trinity	Not Tested	Not Tested	2570	1306		8.58	440	60	0.003	1.6	0.52	122	5.5
6/17/2019	E-19-046P	31.087682	-97.607789	737.84	725	Middle Trinity	Not Tested	Not Tested	5820	3070		8.36	460	460	0.183	0	0.28	1644	6.5
6/24/2019	E-19-046P	31.087682	-97.607789	737.84	725	Middle Trinity	Not Tested	Not Tested	5790	3040		8.36	460	360	0.005	0	0.05	1458	6.5
6/25/2019	E-17-016P	30.934955	-97.606342	725.51	865	Middle Trinity	Not Tested	Not Tested	1489	740		9.14	320	80	0.003	0	0.67	178	3.25
7/11/2019	E-19-003P	30.996179	-97.489901	520.21	100	Edwards (BFZ)	Not Tested	Not Tested	775	380		8.41	280	340	0.005	0.002	0.08	61	0
7/11/2019	E-19-113P	30.956087	-97.501746	588.96	130	Edwards (BFZ)	Not Tested	Not Tested	1141	703		9.03	340	120	0.003	0.015	0.14	149	0
7/16/2019	E-04-027G	30.973515	-97.500268	610.67	170	Edwards (BFZ)	Absence	Absence	1189	586		8.99	300	220	0.005	1.4	0.5	134	3
7/16/2019	E-19-078P	30.971301	-97.603127	783.1	100	Edwards (BFZ)	Not Tested	Not Tested	671	327		8.31	240	320	0.002	9.9	0.26	9	0
7/16/2019	E-19-077P	30.942651	-97.512584	609.62	200	Edwards (BFZ)	Not Tested	Not Tested	842	413		8.55	260	200	0.008	4.9	0.55	73	3
7/17/2019	E-18-048P	30.9737	-97.609548	829.99	100	Edwards (BFZ)	Not Tested	Not Tested	563	273		8.57	260	280	0.001	2.51	0.08	15	0.07
7/26/2019	E-02-3413G	30.90922269	-97.38390795	557.43	30	Alluvium	Presence	Absence	716	349		8.21	320	240	0	9.47	0.07	21	1.01
8/5/2019	E-19-119P	30.9451	-97.58626	722.78	900	Middle Trinity	Not Tested	Not Tested	1588	793		8.91	340	80	0.006	11.3	0.11	216	3
8/6/2019	E-19-053P	30.816381	-97.331572	538.32	36	Alluvium	Not Tested	Not Tested	1495	715		8.73	380	440	0.001	17.6	0.08	97	2
8/7/2019	E-09-032P	30.992059	-97.437151	500.15	520	Edwards (BFZ)	Not Tested	Not Tested	4030	2086		8.89	420	160	0.005	5.7	0.34	821	7.5
8/8/2019	E-04-028P	30.928655	-97.606174	750.42	860	Middle Trinity	Absence	Absence	1628	815		7.95	340	100	0	0	0.05	258	2.72
8/8/2019	E-19-129G	30.908338	-97.624081		400	Upper Trinity	Absence	Absence	2310	1168		7.52	380	400	0.016	1.33	0.05	512	2.6
8/8/2019	E-16-007P	30.914133	-97.628186	743.45	438	Upper Trinity	Presence	Absence	2610	1328		7.46	480	460	0	1.94	0.09	599	3.24
8/12/2019	E-19-120P	30.915171	-97.76474	896.94	720	Lower Trinity	Not Tested	Not Tested	1736	870		8.41	420	80	0.086	0.067	0.07	175	5.5
8/16/2019	E-19-128P	31.079045	-97.444423	504.81	40	Alluvium	Not Tested	Not Tested	781	382		7.38	340	360	0	3.79	0.15	18	0.31
8/26/2019	N1-18-004P	30.930386	-97.720773	789.05	685	Lower Trinity	Not Tested	Not Tested	2330	1180		8.73	400	20	0.004	0.093	0.03	37	5.5
9/3/2019	N2-10-001P	30.927526	-97.429735	626.8	2585	Lower Trinity	Not Tested	Not Tested	1764	885		8.56	380	40	0.002	0.073	0	192	4.1
9/12/2019	E-19-123P	31.050791	-97.536233	783.95	100	Edwards Equivalent	Not Tested	Not Tested	871	429		7.83	300	360	0.002	21.5	0.36	12	1.5
9/12/2019	E-19-130P	31.00473	-97.481203	533.11	140	Edwards (BFZ)	Not Tested	Not Tested	770	376		7.67	320	400	0.005	7.6	0.53	58	0.5
9/12/2019	E-19-218P	30.94555	-97.59123	726.29	900	Middle Trinity	Not Tested	Not Tested	1564	781		8.21	140	420	0.006	2.4	0.54	214	3.5
9/17/2019	E-19-189GU	30.916541	-97.794718	869.97	610	Lower Trinity	Not Tested	Not Tested	2009	1013		7.84	380	320	0	0.977	0.02	533	7.2
9/24/2019	E-19-005G	31.001348	-97.455168	469.56	140	Edwards (BFZ)	Presence	Absence	857	409		7.41	360	360	0.008	14.8	0.22	44	0.5
9/24/2019	E-02-382G	30.989181	-97.484304	605.18	177	Edwards (BFZ)	Not Tested	Not Tested	1377	692		8.21	320	180	0.007	3.2	0.82	141	3.5
9/25/2019	E-19-220G	31.07847	-97.161719	543.4	30	Austin Chalk	Absence	Absence	794	388		7.86	320	320	0.001	0.651	0.04	33	0.53
10/7/2019	E-19-122P	30.942604	-97.602146	725.01	140	Edwards (BFZ)	Not Tested	Not Tested	682	332		7.49	340	340	0.007	13.5	0.15	7	0.2
10/7/2019	E-19-035P	30.936161	-97.584979	681.6	120	Edwards (BFZ)	Not Tested	Not Tested	888	448		8	320	280	0.005	8.3	0.17	85	1.4
10/8/2019	E-19-126P	30.9648	-97.61085	812.2	840	Middle Trinity	Not Tested	Not Tested	1294	643		8.78	340	100	0.001	0.037	0.06	169	2.5
9/17/2019	E-17-039P	30.93394	-97.495587	688.82	400	Edwards (BFZ)	Absence	Absence	1998	1008		8.12	340	140	0	0	0.02	321	6.28
10/9/2019	E-19-028P	30.856601	-97.569951	847.43	450	Edwards (BFZ)	Not Tested	Not Tested	1018	498		8.33	300	140	0.052	0.195	0.59	150	3.35

10/17/2019	E-19-223P	31.040275	-97.902062	907.59	408	Upper Trinity	Not Tested	Not Tested	3540	1885		8.26	340	240	0	0.001	0.04	664	4.2
10/29/2019	E-18-014P	30.91958	-97.61276	730.76	840	Middle Trinity	Presence	Absence	1348	672		8.58	320	80	0.002	0.025	0.04	153	3.7
11/19/2019	E-19-227P	30.972141	-97.613516	833.83	920	Middle Trinity	Not Tested	Not Tested	1208	599		9.8	360	80	0.001	12.8	0.37	2	
11/19/2019	E-19-226P	30.97325	-97.60672	816.29	120	Edwards (BFZ)	Not Tested	Not Tested	678	331		7.72	340	3450	0.006	14.2	0.06	7	0.2
11/26/2019	E-13-029P	31.159965	-97.466452	667.21	930	Middle Trinity	Absence	Absence	3320	1693		8.34	400	220	2.49	0.01	0.12	869	8.15
12/2/2019	E-19-230P	30.91142	-97.775581	868.19	580	Middle Trinity	Not Tested	Not Tested	2430	1253		7.95	360	260	0.008	0.054	0.07	691	5.1
12/9/2019	E-19-004P	30.996164	-97.516599	661.61	160	Edwards (BFZ)	Not Tested	Not Tested	638	321		8.23	300	300	0.004	0.042	5.17	36	1.17
12/10/2019	E-03-449P	30.993922	-97.49459	577.95	960	Middle Trinity	Absence	Absence	1825	924		8.51	360	120	0.001	0.021	0.04	311	3.4
12/16/2019	E-02-3141G	31.013652	-97.400789	502.04	30	Alluvium	Presence	Presence	1138	586		7.42	400	20	0.001	6.67	0.17	31	0
12/19/2019	E-19-045P	30.889829	-97.606535	734.17	80	Edwards (BFZ)	Not Tested	Not Tested	489	238		8.32	220	240	0.004	0.443	0.03	18	0.2

Appendix J

Rainwater Harvesting

Rainwater harvesting is an innovative alternative water supply approach anyone can use. Rainwater harvesting captures, diverts, and stores rainwater for later use.

Implementing rainwater harvesting is beneficial because it reduces demand on existing water supply, and reduces run-off, erosion, and contamination of surface water.

Rainwater can be used for nearly any purpose that requires water. These include landscape use, stormwater control, wildlife and livestock watering, in-home use, and fire protection.

A rainwater harvesting system can range in size and complexity. All systems have basics components, which include a catchment surface, conveyance system, storage, distribution, and treatment.

For more information, please visit the **Texas A&M AgriLife Extension – Rainwater Harvesting website** and the **Texas Water Development Board – Rainwater Harvesting website**.

Related Resources

Rainwater Harvesting Book: Homeowners and landowners can construct systems to capture, store and use rainwater to water their landscape plants.

SEARCH CUWCD

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Appendix K

Brush Control

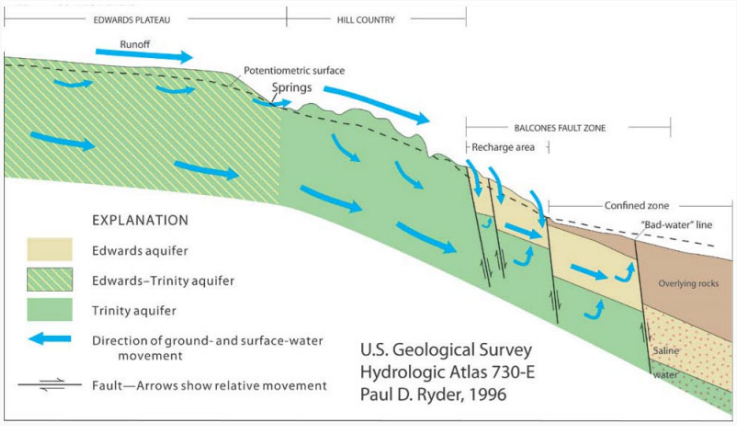
Brush Busters is a cooperative program of the Texas AgriLife Research and Extension Service to expedite the adoption of Tactical Brush Management Systems (TBMS) technology.

Brush Busters methods are easily understood, even by those with little or no previous experience in brush control. We recommend only "select" treatments capable of killing at least 7 out of 10 of the plants treated. Brush Busters methods make every attempt to keep equipment costs and complexity to a minimum, and whenever possible, to use non-restricted herbicides. One-page pamphlets are available from most County Extension offices that describe, in a simple 3-step process, the Brush Busters control methods for mesquite, pricklypear and cedar. Videos are available for checkout through most County Extension offices that demonstrate the Brush Busters control methods. For those who are computer literate, a CD-ROM Brush Busters program is a vailable that uses interactive video, audio and graphics to teach the use of Brush Buster methods for mesquite control.

- Cedar
  - Leaf Spray Method
  - Spot Spray Method
  - Top Removal Method
  - How to Estimate Costs for Controlling Small Cedar
- Cut Stumps
  - Cut Stump Spray for Hardwood Species
  - Cut Stump Spray for Redberry Cedar
- Huisache
  - Leaf Spray Method
  - Stem Spray Method
- Macartney Rose
  - Leaf Spray Method
- Mesquite
  - Leaf Spray Method
  - Stem Spray Method
  - How to Estimate Cost for Controlling Mesquite
- Pricklypear
  - Pad or Stem Spray Method
  - Top Removal Method
  - How to Estimate Costs for Controlling Pricklypear
- Saltcedar
  - Leaf Spray Method
  - Stem Spray Method
- Tallowtrees
  - Leaf Spray Method
  - Stem Spray Method
- Yucca
  - Herbicide + Oil Whorl Spray
  - Undiluted Whorl Spray
- Equipment

Appendix L

Recharge Enhancement



Recharge enhancement is an important tool to help encourage recharge of our groundwater. Urban development decreases direct recharge from precipitation but introduces new sources of water which, in most instances, can increase groundwater recharge if applied properly.

Best Management Practices for Recharge Enhancement

Onion Creek Recharge Enhancement

SEARCH CUWCD

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Appendix M

Clearwater UWCD - Edwards BFZ Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	58-04-628	58-04-502	58-04-508	58-04-509	58-04-602	58-04-623	58-04-702	58-04-510	58-04-626	58-04-512	58-04-513	58-04-816	58-04-627
CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
2/5/1941 12:00													
7/23/1966 12:00		-60.00											
2/20/1968 12:00					-35.00								
1/1/1980 0:00							-71.00						
1/1/1981 0:00					-29.30								
1/1/1985 0:00		-50.30											
1/1/1993 0:00						-83.80							
9/2/1997 12:00								-60.00					
3/16/1998 12:00													-40.00
11/4/1999 12:00									-90.00				
8/8/2000 12:00										-84.00	-86.00		
1/1/2003 0:00		-48.50			-63.20	-83.40	-78.25						-38.20
7/1/2003 0:00		-55.90			-38.20	-88.00	-71.96						-41.00
1/1/2004 0:00		-49.00			-29.50	-88.10	-72.72						-39.80
7/1/2004 0:00		-48.40			-32.70	-81.20	-71.84						-37.90
1/1/2005 0:00		-47.00			-27.20	-84.70	-72.20						-37.50
7/1/2005 0:00		-51.60			-36.00	-85.60	-72.17						-41.80
1/1/2006 0:00		-51.60			-36.50	-81.40							-41.70
4/1/2006 0:00											-102.79		
7/1/2006 0:00		-43.40			-41.84	-93.70	-72.73						-42.00
9/1/2006 0:00		-42.90			-34.09	-81.20	-72.87						-41.50
10/1/2006 0:00		-44.40			-33.21	-84.20	-72.95						-43.00
11/1/2006 0:00		-43.60			-30.09	-79.40	-73.05						-42.20
1/1/2007 0:00		-49.30			-27.55	-78.70	-72.08						-39.20
7/1/2007 0:00		-44.60			-31.50	-70.70	-69.87						
7/4/2007 0:00													-34.60
1/1/2008 0:00		-49.60			-31.42	-84.90	-72.07						-40.30
7/1/2008 0:00	-124.80	-52.00			-40.17	-70.70	-69.82						-42.00
1/1/2009 0:00	-125.47	-51.40			-38.92	-87.20	-72.88					-71.91	-41.80
7/1/2009 0:00	-128.15	-53.50			-34.92	-84.10	-73.19					-83.61	-49.90
1/1/2010 0:00	-118.18	-48.20			-27.12	-66.10	-70.43					-39.81	-38.00
7/1/2010 0:00	-120.46	-50.50			-31.53	-80.10						-72.83	-40.50
1/1/2011 0:00	-121.76	-49.20			-31.43	-81.00	-72.05					-64.63	-41.40
7/1/2011 0:00	-125.39	-53.30			-35.52	-85.60	-71.05					-81.51	-42.90
9/1/2011 0:00	-126.41	-53.80			-37.83	-87.60	-71.15					-89.10	-44.20
11/1/2011 0:00	-126.09	-52.60			-32.53	-82.00	-72.08					-80.97	-42.80
1/1/2012 0:00	-125.18	-50.00			-30.73	-78.10	-74.20					-64.78	-41.00
5/1/2012 0:00	-123.57	-50.60			-31.20	-80.30	-73.83					-79.17	-40.20
1/1/2013 0:00	-125.18	-49.60			-32.40	-83.80	-71.20					-71.54	-40.60
1/7/2013 0:00			-58.00	-76.00				-109.60	-66.10	-87.00	-101.90		
3/6/2013 0:00													
4/1/2013 0:00			-59.50	-78.50				-114.30	-67.60	-89.70	-102.30		
5/1/2013 0:00	-126.78	-49.80			-31.60	-84.90	-73.57					-64.79	-40.40
8/1/2013 0:00	-129.44	-52.30			-32.20	-82.50	-73.70					-84.93	-42.80
8/5/2013 0:00			-70.24	-89.90				-115.90	-93.70	-97.45	-85.30		
11/1/2013 0:00	-125.05	-49.50			-29.40	-79.50	-73.60					-53.35	-42.10
12/2/2013 0:00			-57.60	-74.60				-83.90	-64.50	-85.67	-93.30		

Clearwater UWCD - Edwards BFZ Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

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CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
1/6/2014 0:00			-58.30	-73.50				-102.30	-63.90	-85.67	-102.50		
2/1/2014 0:00	-124.22	-49.70			-30.20	-78.40	-73.64					-67.54	-40.60
4/7/2014 0:00			-60.34	-75.60				-108.72	-65.50	-87.17	-102.90		
5/1/2014 0:00	-125.66	-52.00			-31.00	-88.70	-73.98					-72.25	-45.30
8/1/2014 0:00	-128.09	-52.50			-33.80	-90.20	-74.24					-82.71	-45.50
8/4/2014 0:00			-70.74	-88.30				-115.80	-91.80	-95.77	-83.91		
11/1/2014 0:00	-127.60	-43.70			-31.20	-87.00	-74.33					-77.79	-50.70
12/1/2014 0:00			-58.44	-77.14				-110.90	-66.90	-88.27	-102.50		
1/1/2015 0:00	-125.52	-41.10			-29.60	-77.70	-73.77					-30.01	-47.50
1/5/2015 0:00			-58.30	-76.30	-31.07			-89.90	-66.10	-87.57	-102.10		
2/2/2015 0:00			-58.24	-83.04	-29.77			-108.10	-65.70	-86.47	-102.71		
3/2/2015 0:00			-58.44	-74.74	-30.67			-105.90	-64.70	-86.37	-102.81		
4/6/2015 0:00			-57.94	-83.50	-29.17			-108.70	-65.70	-86.07	-103.10		
5/4/2015 0:00			-67.54	-84.54	-29.77			-110.60	-88.90	-86.87	-103.21		
6/1/2015 0:00	-121.67	-38.30	-64.64	-81.14	-23.97	-74.80	-72.97	-106.30	-63.50	-80.47	-76.61	-23.43	-45.60
7/6/2015 0:00			-69.34	-80.74	-26.77			-83.20	-62.50	-83.07	-76.61		
8/3/2015 0:00			-69.74	-82.14	-54.87			-110.50	-85.30	-87.47	-77.70		
9/14/2015 0:00	-122.76	-50.40	-68.04	-83.54	-27.70	-79.30	-72.70	-113.50	-65.30	-88.89	-78.51	-77.55	-44.10
10/5/2015 0:00			-68.54	-84.84	-28.47			-113.20	-66.50	-91.30	-79.80		
11/2/2015 0:00			-57.54	-83.04	-25.07			-91.60	-64.70	-82.87	-77.21		
11/30/2015 0:00	-120.44	-45.40			-23.90	-70.80	-72.03					-16.20	-38.80
12/4/2015 0:00			-57.34										
12/7/2015 0:00			-57.34	-142.28	-24.77			-84.00	-61.20	-79.27	-102.60		
1/1/2016 0:00							-72.83						
1/4/2016 0:00			-57.34	-79.54	-24.60			-83.50	-61.30	-78.09	-102.49		
1/5/2016 0:00	-119.60	-47.00			-24.60	-69.30	-71.91					-61.53	-38.80
2/1/2016 0:00			-57.50	-70.34	-25.60			-80.50	-60.20	-79.69	-102.59		
3/7/2016 0:00			-57.90	-71.94	-26.60			-105.50	-61.50	-81.69	-102.69		
4/4/2016 0:00			-66.34	-73.50	-25.80			-109.10	-62.70	-81.10	-102.79		
4/16/2016 0:00													
4/19/2016 0:00	-120.16	-47.50			-26.30	-68.50	-71.39					-15.78	-38.14
5/2/2016 0:00			-58.50	-71.54	-25.40			-105.10	-61.30	-80.00	-102.69		
6/1/2016 0:00	-117.89						-71.27						
6/2/2016 0:00												-4.49	
6/6/2016 0:00			-56.70	-68.64	-23.00			-101.90	-58.40	-76.29	-102.99		
7/5/2016 0:00			-67.50	-73.74	-25.20			-109.70	-61.00	-82.69	-74.19		
8/1/2016 0:00			-67.74	-80.30	-26.40			-109.20	-83.70	-85.20	-75.79		
8/29/2016 0:00			-65.94	-72.54	-25.40			-109.00	-61.70	-82.09	-74.89		
8/30/2016 0:00	-119.40	-48.33				-74.22	-71.40					-53.40	
10/3/2016 0:00			-61.40	-73.54	-26.40			-111.90	-62.90	-84.49	-76.49		
10/6/2016 0:00	-120.43						-71.60					-74.40	
10/19/2016 0:00	-121.11						-71.75					-73.02	
11/1/2016 0:00	-121.40						-71.78						
11/2/2016 0:00												-145.82	
11/7/2016 0:00			-59.14	-73.34	-27.20			-110.30	-62.90	-82.69	-76.69		
11/28/2016 0:00			-58.74	-72.74	-27.40			-108.70	-62.50	-82.89	-76.69		
12/1/2016 0:00	-121.79						-71.95					-65.21	

Clearwater UWCD - Edwards BFZ Monitor Wells

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State #	58-04-628	58-04-502	58-04-508	58-04-509	58-04-602	58-04-623	58-04-702	58-04-510	58-04-626	58-04-512	58-04-513	58-04-816	58-04-627
CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
12/6/2016 0:00	-121.67						-71.93					-51.22	
12/12/2016 0:00			-58.14	-72.50	-27.57			-101.70	-63.14	-83.29	-102.69		
12/19/2016 0:00			-58.34	-72.54	-27.77			-107.30	-63.20	-83.29	-102.49		
1/5/2017 0:00	-121.90	-48.80				-75.40	-72.00					-63.20	-40.80
1/6/2017 0:00													
1/9/2017 0:00			-58.34	-73.54	-27.80			-107.50	-63.70	-84.09	-102.69		
2/6/2017 0:00	-121.71		-58.14	-73.54	-27.37		-72.06	-88.30	-62.90	-83.09	-85.23	-53.37	
3/5/2017 0:00	-121.11						-72.23						
3/6/2017 0:00			-57.94	-72.74	-27.20			-86.80	-62.10	-82.29	-83.69	-43.11	
3/31/2017 0:00	-120.90	-48.10				-75.00	-72.35					-60.13	-47.20
4/3/2017 0:00			-61.70	-72.74	-26.97			-86.90	-62.10	-102.70	-82.49		
5/8/2017 0:00	-121.15		-67.94	-82.94	-55.17		-72.46	-112.70	-86.70	-83.29	-102.99	-69.82	
6/4/2017 0:00	-121.34						-72.48						
6/5/2017 0:00			-68.44	-79.94	-27.37			-82.10	-62.60	-84.19	-76.49	-63.60	
7/3/2017 0:00			-70.94	-83.14				-110.80	-85.30	-90.99	-79.29		
7/6/2017 0:00	-122.22	-44.70				-88.90	-72.59					-73.75	-50.30
7/31/2017 0:00			-71.54	-85.04	-31.17			-114.90	-87.10	-94.89	-81.59		
8/9/2017 0:00	-122.76						-72.67					-71.86	
9/5/2017 0:00	-123.00						-72.70					-54.90	
9/11/2017 0:00				-76.74	-28.77			-111.80	-90.50	-93.09	-80.49		
10/2/2017 0:00			-70.54	-75.14	-29.07			-110.80	-66.00	-92.89	-79.69		
10/3/2017 0:00		-52.20				-79.40							-44.10
11/6/2017 0:00	-123.66		-70.14	-186.84	-29.37		-72.85		-64.70	-91.99	-80.09	-54.90	
11/27/2017 0:00													
12/4/2017 0:00	-123.96		-70.54	-76.24	-29.77		-72.85	-111.90	-91.50	-86.99	-102.89	-56.04	
12/29/2017 0:00	-123.84	-51.20				-81.20	-72.94					-61.67	
1/8/2018 0:00			-61.54	-83.80	-50.37				-64.40	-85.29	-102.29		-43.60
2/5/2018 10:04												-56.45	
2/5/2018 10:05	-124.09												
2/5/2018 10:06							-72.95						
2/5/2018 10:07													
2/5/2018 13:10					-50.47								
2/5/2018 13:11			-70.14										
2/5/2018 13:12				-74.44									
2/5/2018 13:14								-84.90	-64.90				
2/5/2018 13:15										-86.09			
2/5/2018 13:16											-102.59		
3/5/2018 12:00	-124.30		-61.64	-74.24	-50.47		-72.92	-86.50	-64.60	-89.69	-102.59	-62.86	
3/29/2018 12:00	-124.48												
3/30/2018 0:00													
3/30/2018 10:13													
3/30/2018 10:20													
3/30/2018 11:25						-93.80							
3/30/2018 11:40		-52.19											
3/30/2018 11:46													
3/30/2018 12:00							-72.95					-75.11	
3/30/2018 12:28													

Clearwater UWCD - Edwards BFZ Monitor Wells

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State #	58-04-628	58-04-502	58-04-508	58-04-509	58-04-602	58-04-623	58-04-702	58-04-510	58-04-626	58-04-512	58-04-513	58-04-816	58-04-627
CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
3/30/2018 12:40													
3/30/2018 12:43													
3/30/2018 13:27													
4/2/2018 9:00			-71.04	-88.90	-50.57					-86.19			
4/3/2018 9:00									-66.10		-102.89		
5/6/2018 14:00													
5/7/2018 12:00	-125.50		-69.14	-86.14	-30.77		-73.22	-111.90	-67.40	-90.89	-82.47	-58.26	
6/3/2018 19:00							-73.27						
6/3/2018 22:00	-126.42												
6/4/2018 0:00												-48.49	
6/4/2018 12:00			-68.54	-85.74	-31.17			-90.30	-89.90	-97.79	-83.89		
6/11/2018 10:00	-127.03												
6/11/2018 12:00			-68.54	-88.34				-117.60	-90.30	-99.29	-85.09		
6/12/2018 12:00					-32.77								
7/2/2018 0:00			-68.74	-89.24									
7/2/2018 12:00					-50.97			-117.90	-91.10	-100.89	-85.89		
7/5/2018 0:00													
7/5/2018 9:30													
7/5/2018 9:40													
7/5/2018 9:56													
7/5/2018 10:15						-82.10							
7/5/2018 10:30		-51.19											
7/5/2018 10:36													-43.80
7/5/2018 10:40													
7/5/2018 11:35													
7/5/2018 11:47													
7/5/2018 11:50													
7/5/2018 12:00	-126.74						-73.36					-46.42	
7/5/2018 12:28													
7/9/2018 12:00			-59.48	-80.54	-32.97			-91.50	-95.20	-99.49	-84.69		
7/16/2018 12:00			-59.64	-78.74	-34.01			-89.70	-93.70	-100.89	-84.69		
7/23/2018 12:00			-69.24	-91.54	-50.97			-119.20	-91.70	-103.19	-86.29		
7/30/2018 8:00			-69.54	-92.34	-50.97			-120.10	-92.50	-102.99	-102.89		
8/6/2018 12:00	-128.87		-69.54	-90.74	-50.97		-73.29	-119.70	-92.30	-103.09	-102.69		
8/9/2018 12:00												-40.05	
8/13/2018 12:00	-127.84		-59.40	-80.14	-34.07		-73.29	-91.20	-94.90	-100.90	-84.99	-46.20	
8/20/2018 12:00			-69.24	-90.54	-50.97			-118.90	-97.00	-101.29	-85.99		
8/27/2018 12:00			-72.54	-90.54	-50.97			-119.10	-97.70	-103.19	-86.29		
9/3/2018 12:00	-129.06						-73.36					-42.24	
9/10/2018 12:00			-58.74	-78.04	-33.70			-87.70	-69.90	-97.69	-82.89		
9/17/2018 12:00			-58.84	-77.54	-32.77			-87.10	-69.50	-96.69	-82.39		
9/24/2018 12:00			-58.54	-77.14	-31.57			-87.30	-67.30	-96.69	-84.40		
9/27/2018 0:00													
9/27/2018 10:10													
9/27/2018 10:32													
9/27/2018 10:38													
9/27/2018 11:17		-50.00											

Clearwater UWCD - Edwards BFZ Monitor Wells

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CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
9/27/2018 11:26													-42.60
9/27/2018 11:30													
9/27/2018 12:00							-73.41					-66.67	
9/27/2018 12:02													
9/27/2018 12:12													
9/27/2018 12:14													
9/27/2018 13:18													
9/28/2018 12:00	-125.56												
10/1/2018 10:59						-83.20							
10/1/2018 12:00			-58.64	-75.94	-31.77			-86.90	-66.30	-98.59	-82.49		
10/8/2018 12:00			-58.54	-75.04	-31.97			-84.50	-66.10	-94.09	-80.79		
10/15/2018 12:00			-117.28	-75.34	-31.57			-84.50	-94.30	-93.69	-80.59		
10/22/2018 12:00			-56.94	-74.34	-27.17			-83.00	-90.60	-88.09	-78.69		
11/5/2018 11:00							-73.06						
11/5/2018 12:00	-17.44		-57.84	-73.64	-27.57			-81.90	-89.20	-86.89	-77.49	-123.01	
11/12/2018 12:00			-57.94	-73.14	-27.97			-105.30	-89.90	-84.90	-77.17		
11/19/2018 12:00			-58.14	-73.54	-27.97			-106.10	-63.70	-84.49	-102.69		
11/26/2018 12:00			-58.14	-73.74	-28.17			-107.10	-63.70	-84.49	-102.69		
12/3/2018 0:00									-63.70				
12/3/2018 12:00	-55.90		-58.34		-28.17		-73.08	-107.40		-84.49	-102.89	-122.45	
12/4/2018 12:00				-73.94									
12/19/2018 10:00													
12/27/2018 9:45													
12/27/2018 9:50													
12/27/2018 10:40						-74.40							
12/27/2018 10:50		-48.00											
12/27/2018 10:53													
12/27/2018 11:05													
12/27/2018 11:37													
12/27/2018 11:49													
12/27/2018 11:52													
12/27/2018 12:00	-30.36						-72.86					-121.15	
12/27/2018 12:40													
12/31/2018 12:00			-57.74	-71.34	-26.90			-103.90	-61.90	-81.79	-102.69		
2/4/2019 12:00	-43.46						-72.34					-119.33	
2/11/2019 12:00			-57.54	-69.94	-25.77			-103.90	-60.10	-79.49	-102.69		
3/4/2019 11:27						-75.00							
3/4/2019 12:00	-57.45		-57.94	-69.84	-26.17		-72.45	-79.70	-60.20	-79.79	-102.69	-119.23	
3/28/2019 10:32													
3/28/2019 11:00													
3/28/2019 11:08													
3/28/2019 11:35						-92.80							
3/28/2019 11:45		-48.59											
3/28/2019 12:00	-61.90						-72.47					-120.05	-40.60
3/28/2019 12:48													
3/28/2019 12:58													
3/28/2019 13:05													

Clearwater UWCD - Edwards BFZ Monitor Wells

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CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
3/28/2019 13:24													
3/28/2019 13:26													
3/28/2019 13:30													
3/28/2019 14:05													
4/1/2019 12:00			-58.04	-72.54	-26.67			-110.70	-61.90	-81.29	-102.69		
5/6/2019 7:00							-71.69						
5/6/2019 9:50						-69.80							
5/6/2019 10:00												-119.38	
5/6/2019 12:00	-4.70		-56.14	-70.74	-21.57			-78.50	-60.90	-75.59	-72.49		
6/3/2019 12:00	-57.38		-57.34	-78.54	-25.07		-71.56	-104.00	-59.90	-79.29	-73.09	-118.24	
6/5/2019 9:52						-73.20							
6/26/2019 12:00													
6/27/2019 11:10													
6/27/2019 11:35													
6/27/2019 11:38													
6/27/2019 11:40													
6/27/2019 12:00	-34.76											-118.13	
6/27/2019 12:05						-84.60							
6/27/2019 12:52													-39.60
6/27/2019 12:54													
6/27/2019 13:04													
6/27/2019 13:27													
6/27/2019 13:52													
6/27/2019 14:15													
7/1/2019 12:00			-57.54		-25.37			-108.30	-60.20	-78.19	-73.69		
7/1/2019 14:00				-70.94									
7/11/2019 11:25													
7/22/2019 8:10													
7/22/2019 8:20													
7/22/2019 8:31													
7/22/2019 8:55													
7/22/2019 9:58													
7/22/2019 10:00													
7/22/2019 10:18		-48.59											
7/22/2019 10:40													
7/22/2019 11:20													
7/22/2019 11:36													
7/22/2019 12:00	-75.60		-57.94	-81.54	-26.17			-109.00	-83.20	-85.19	-75.79	-119.77	
7/22/2019 13:30													
7/22/2019 13:35													
7/22/2019 14:09													
7/22/2019 15:00													
7/22/2019 15:30													
7/22/2019 15:35													
7/23/2019 11:10													
7/23/2019 13:25													
7/23/2019 14:00													

Clearwater UWCD - Edwards BFZ Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	58-04-628	58-04-502	58-04-508	58-04-509	58-04-602	58-04-623	58-04-702	58-04-510	58-04-626	58-04-512	58-04-513	58-04-816	58-04-627
CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
7/23/2019 14:45						-106.50							
7/24/2019 9:00													-41.00
8/5/2019 12:00	-75.26		-69.54	-74.34	-55.67			-87.10	-88.90	-86.09	-76.29	-119.59	
8/6/2019 11:45						-79.70							
8/26/2019 15:27													
8/26/2019 17:25													
9/3/2019 12:00	-76.71						-72.16					-121.07	
9/4/2019 12:00			-70.54	-83.24	-50.77			-111.30	-85.10	-89.09	-78.09		
9/11/2019 13:25													
9/11/2019 13:28													
9/25/2019 9:20													
9/25/2019 9:40													
9/25/2019 10:18													
9/25/2019 10:43													
9/25/2019 11:28						-84.80							
9/25/2019 11:59													
9/25/2019 12:00	-76.08						-72.27					-122.11	
9/25/2019 12:02													
9/25/2019 13:11		-53.19											
9/25/2019 13:14													-43.90
9/25/2019 13:20													
9/25/2019 13:23													
9/25/2019 13:46													
9/26/2019 14:15													
9/26/2019 14:35													
9/26/2019 14:45													
9/26/2019 14:47													
9/26/2019 14:50													
9/26/2019 15:12													
9/26/2019 15:19													
9/27/2019 12:00													
11/4/2019 12:00	-68.41											-122.12	
12/2/2019 12:00	-67.27		-70.54	-72.14	-50.77			-80.80	-62.70	-83.88	-102.69	-122.73	
12/4/2019 11:43						-82.60							
12/27/2019 9:10													
12/27/2019 9:27													
12/27/2019 9:55													
12/27/2019 11:00													
12/27/2019 11:13													
12/27/2019 11:28													
12/27/2019 11:41													
12/27/2019 12:00							-72.59					-123.03	
12/27/2019 12:10													
12/27/2019 12:23													
12/30/2019 0:00				-72.74									
12/30/2019 12:00			-65.94		-50.67			-81.10	-63.50	-84.49	-102.67		
12/30/2019 12:41													

Clearwater UWCD - Edwards BFZ Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	58-04-628	58-04-502	58-04-508	58-04-509	58-04-602	58-04-623	58-04-702	58-04-510	58-04-626	58-04-512	58-04-513	58-04-816	58-04-627
CUWCD #	M-08-002G	M-13-004G	N2-02-005G	N2-02-007G	N2-02-003G	N2-02-002G	M-06-001G	N2-02-008G	N2-02-009G	N2-02-010G	N2-02-011G	M-08-001G	N2-03-004G
Well Name	Salado Cemetary	Salado ISD	Salado WSC (#3)	Salado WSC (#5)	Salado WSC (#1)	Stagecoach (deep)	Patterson's Crossing	Salado WSC (#6)	Salado WSC (#7)	7KX Ranch (#8)	7KX Ranch (#9)	Rest Stop	Salado ISD (MS)
Highest	-4.70	-38.30	-56.14	-68.64	-21.57	-66.10	-69.82	-60.00	-58.40	-75.59	-72.49	-4.49	-34.60
Lowest	-129.44	-60.00	-117.28	-186.84	-63.20	-106.50	-78.25	-120.10	-97.70	-103.19	-103.21	-145.82	-50.70
12/30/2019 13:16													
12/30/2019 13:19													
12/30/2019 13:21													
12/30/2019 13:23													
12/30/2019 13:28													
12/30/2019 13:32													
12/30/2019 13:48													
12/30/2019 13:58													
12/30/2019 14:10													
Since Last	1.14	-4.60	4.60	-0.60	0.10	2.20	-0.32	-0.30	-0.80	-0.61	0.02	-0.30	-2.90
Historic	57.53	6.81	-7.94	3.26	-15.67	1.20	-1.59	-21.10	26.50	-0.49	-16.67	-51.12	-3.90

E-line Measurement
Sonic Measurement
TWDB Measurement
No Reading Available

Keep in mind that the Edwards (BFZ) is a Karst aquifer and static water levels are a measurement of aquifer health in conjunction with spring flow. The desired future conditions established by Clearwater for the Edwards (BFZ) aquifer are based on maintaining Salado Spring discharge into Salado Creek during a repeat of conditions similar to the 1950's drought of record. Under the drought of record conditions, a spring discharge of 200 acre-feet per month is preferred and 100 acre-feet per month is the minimum acceptable spring flow.

Minimum Number of Measurements: 3

Average Drawdown **-0.2 ft/yr**

Drawdown of Water Level

Increase of Water Level

Clearwater UWCD - Upper Trinity Monitor Wells

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State #	40-57-902	40-57-903	40-58-201	58-04-103	57-15-903								
CUWCD #	E-02-721G	E-02-722G	M-10-001P	E-16-052GU	M-17-CTGCD_Robinson								
Well Name	McCallum #1	McCallum #2	CTC	Fant	Robinson								
Highest	-131.20	-131.10	-77.83	-280.10	-4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lowest	-172.60	-173.30	-87.59	-339.85	-64.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/24/1993 0:00				-301.70									
2/8/1994 0:00				-308.25									
1/26/1995 0:00				-280.10									
1/18/1996 0:00				-309.10									
1/14/1997 0:00				-302.44									
1/12/1998 0:00				-302.27									
1/13/1999 0:00				-297.20									
1/11/2000 0:00				-310.90									
1/12/2001 0:00				-312.70									
1/10/2002 0:00				-311.60									
1/29/2003 0:00				-310.80									
2/19/2004 0:00				-304.70									
1/14/2005 0:00				-311.60									
11/1/2006 0:00	-142.10	-142.50											
1/1/2007 0:00	-144.30	-144.20											
7/1/2007 0:00	-131.20	-131.10											
1/1/2008 0:00	-134.50	-134.40											
1/23/2008 0:00				-311.55									
7/1/2008 0:00	-151.80	-151.50											
1/1/2009 0:00	-145.40	-145.00											
2/3/2009 0:00				-339.85									
7/1/2009 0:00	-159.60	-159.50											
1/1/2010 0:00	-152.10	-152.00	-87.59		-7.38								
3/24/2010 0:00				-320.04									
7/1/2010 0:00	-150.60	-151.30	-77.83		-14.51								
1/1/2011 0:00	-149.70	-150.00	-79.64		-16.03								
2/25/2011 0:00				-326.12									
7/1/2011 0:00	-166.80	-165.70	-80.53		-16.42								
9/1/2011 0:00	-170.10	-170.90	-81.01		-28.97								
10/4/2011 0:00				-325.51									
11/1/2011 0:00	-163.80	-164.30	-80.28		-48.35								
1/1/2012 0:00	-156.50	-157.30	-79.72		-64.19								
5/1/2012 0:00	-156.40	-157.60	-78.99		-13.83								
10/9/2012 0:00				-332.23									
1/1/2013 0:00	-155.00	-157.30	-81.66		-16.64								
5/1/2013 0:00	-160.80	-161.30	-82.13		-16.34								
8/1/2013 0:00	-172.60	-173.30	-82.70		-15.16								
11/1/2013 0:00	-159.20	-160.00	-82.35		-13.11								
12/13/2013 0:00				-331.41									
2/1/2014 0:00	-156.80	-157.70	-82.68		-14.94								

Clearwater UWCD - Upper Trinity Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	40-57-902	40-57-903	40-58-201	58-04-103	57-15-903								
CUWCD #	E-02-721G	E-02-722G	M-10-001P	E-16-052GU	M-17-CTGCD_Robinson								
Well Name	McCallum #1	McCallum #2	CTC	Fant	Robinson								
Highest	-131.20	-131.10	-77.83	-280.10	-4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lowest	-172.60	-173.30	-87.59	-339.85	-64.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/1/2014 0:00	-163.00	-162.90	-83.07		-15.95								
8/1/2014 0:00	-169.70	-167.70	-83.56		-15.96								
11/1/2014 0:00	-165.10	-166.60	-83.42		-21.88								
1/1/2015 0:00	-157.60	-158.40	-83.54		-15.98								
6/1/2015 0:00	-153.20	-154.20	-83.92		-10.12								
9/14/2015 0:00	-167.90	-167.90	-83.48		-15.17								
11/30/2015 0:00	-155.50	-156.50	-82.72		-10.51								
1/1/2016 0:00					-4.93								
1/5/2016 0:00	-154.70	-155.60	-83.50										
4/19/2016 0:00	-155.03	-157.07	-83.82		-7.72								
6/1/2016 0:00					-8.28								
8/30/2016 0:00	-159.00	-162.50	-84.45										
10/3/2016 0:00			-84.30										
10/6/2016 0:00				-310.15									
10/19/2016 0:00			-84.25										
12/1/2016 0:00			-84.07										
12/6/2016 0:00			-83.91										
12/29/2016 0:00	-153.60	-153.79											
1/5/2017 0:00			-83.90										
2/6/2017 0:00			-83.92										
3/5/2017 0:00			-83.96										
3/6/2017 0:00													
3/30/2017 0:00	-154.10	-154.39	-84.00										
5/8/2017 0:00			-84.23										
6/4/2017 0:00			-84.21										
6/5/2017 0:00													
7/7/2017 0:00	-162.70	-162.90	-84.51										
8/9/2017 0:00			-83.28										
9/5/2017 0:00			-83.37										
10/2/2017 0:00	-160.90	-161.39	-83.30										
10/2/2017 14:09					-14.20								
11/6/2017 0:00			-83.29										
11/6/2017 14:13					-14.05								
12/4/2017 0:00			-83.20										
12/4/2017 14:13					-14.12								
12/27/2017 0:00	-156.70	-156.79	-83.31										
12/27/2017 14:14					-13.81								
2/5/2018 10:10													
3/5/2018 0:00					-13.86								
3/5/2018 12:00													

Clearwater UWCD - Upper Trinity Monitor Wells

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State #	40-57-902	40-57-903	40-58-201	58-04-103	57-15-903								
CUWCD #	E-02-721G	E-02-722G	M-10-001P	E-16-052GU	M-17-CTGCD_Robinson								
Well Name	McCallum #1	McCallum #2	CTC	Fant	Robinson								
Highest	-131.20	-131.10	-77.83	-280.10	-4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lowest	-172.60	-173.30	-87.59	-339.85	-64.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/8/2018 12:00			-83.18										
3/29/2018 0:00					-13.98								
3/29/2018 12:00			-83.41										
5/7/2018 0:00					-13.54								
5/7/2018 12:00													
5/7/2018 14:21			-83.78										
6/3/2018 20:00			-83.99										
6/4/2018 0:00					-11.75								
6/4/2018 2:00													
6/21/2018 11:57		-162.70											
6/21/2018 12:00			-84.21										
6/22/2018 11:53	-162.60												
6/22/2018 15:27													
7/5/2018 0:00					-11.18								
8/6/2018 12:00			-84.54										
8/13/2018 12:00			-84.38										
9/3/2018 12:00			-84.46										
9/28/2018 12:00			-84.30										
9/28/2018 12:14	-165.70												
9/28/2018 12:17		-166.00											
11/5/2018 12:00			-83.46		-5.69								
12/3/2018 12:00			-83.64		-8.36								
12/26/2018 11:24	-157.10												
12/26/2018 11:27		-157.39											
12/26/2018 12:00			-83.35										
12/31/2018 12:00					-8.77								
2/4/2019 12:00			-83.48		-8.75								
3/4/2019 12:00			-83.91		-9.39								
3/26/2019 11:25	-154.00												
3/26/2019 11:28		-154.10											
3/26/2019 12:00			-84.02										
4/1/2019 12:00					-10.07								
5/6/2019 8:00			-84.51										
5/6/2019 12:00					-9.56								
6/3/2019 12:00			-84.88		-9.55								
6/26/2019 11:13	-154.10												
6/26/2019 11:16		-154.39											
6/26/2019 12:00													
7/1/2019 12:00					-10.22								
8/5/2019 12:00			-84.81		-11.04								

Clearwater UWCD - Upper Trinity Monitor Wells

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State #	40-57-902	40-57-903	40-58-201	58-04-103	57-15-903								
CUWCD #	E-02-721G	E-02-722G	M-10-001P	E-16-052GU	M-17-CTGCD_Robinson								
Well Name	McCallum #1	McCallum #2	CTC	Fant	Robinson								
Highest	-131.20	-131.10	-77.83	-280.10	-4.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lowest	-172.60	-173.30	-87.59	-339.85	-64.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/2/2019 12:00					-11.73								
9/3/2019 12:00			-85.08										
9/27/2019 11:41	-164.50												
9/27/2019 11:43		-165.00											
9/27/2019 12:00			-84.98										
10/7/2019 12:00					-12.85								
11/4/2019 12:00			-85.22		-13.56								
12/2/2019 12:00			-85.26										
12/26/2019 12:00			-85.07										
12/26/2019 13:20	-158.50												
12/26/2019 13:22		-158.79											
Since Last	6.00	6.21	0.19	21.26	-0.71								
Historic	-16.40	-16.29	2.52	-8.45	-6.18								

E-line Measurement
Sonic Measurement
TWDB Measurement
No Reading Available

The desired future conditions established by Clearwater Underground Water Conservation District for the Upper Trinity is no more than 155 feet of drawdown after 50 years.

The average drawdown goal per year is -3.1 feet.

Minimum Number of Measurements: 3

Average Drawdown	**-0.57 ft/yr**
Drawdown of Water Level	
Increase of Water Level	

Clearwater UWCD - Middle Trinity Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	58-02-302	58-04-405	None	58-05-901	58-04-407	58-04-406	58-04-514	None	None	None	None	40-58-903	None	None	58-04-104	None	40-57-601	58-03-504	None
CUWCD #	M-16-001G	E-05-083P	N2-11-003G	N2-02-013G	E-02-1407G	E-02-1406G	E-02-1409G	N2-07-006G	E-03-444P	N2-04-011P	E-07-011P	E-06-063P	N2-07-003G	N2-08-002P	E-08-005P	N1-09-003P	M-09-001P	E-10-003P	N2-10-003P
Well Name	River Ridge Monitor Well	Lester (Murphy)	UMHB	City of Holland	Reavis	H. Springs	H. Spring Park	Maxdale Cowboy Church	McLemore	Central Texas Strike Zone	Brooks	Veterans Monitor Well	Killeen Crushed Stone	Salado ISD (HS)	Stephenson	Laurie Gehring	Copperas Cove - Middle	Christian	James Construction
Highest	-254.90	-281.40	-301.10	-17.20	-370.40	-373.90	-313.00	-62.00	-399.58	-305.30	-566.00	-359.70	-343.30	-288.10	-346.90	-422.80	-295.47	-555.40	-318.20
Lowest	-348.96	-438.50	-326.30	-56.08	-441.20	-438.00	-377.80	-179.50	-490.80	-333.50	-709.57	-440.60	-469.50	-345.00	-444.50	-439.50	-321.18	-605.50	-357.00
1/1/2003 0:00				-23.70															
1/29/2003 0:00																			
7/1/2003 0:00				-25.30															
1/1/2004 0:00				-26.20															
2/19/2004 0:00																			
7/1/2004 0:00				-28.20															
1/1/2005 0:00				-29.90															
1/10/2005 0:00																			
7/1/2005 0:00				-31.80															
1/1/2006 0:00				-26.00									-376.80						
7/1/2006 0:00				-28.30															
9/1/2006 0:00				-28.00															
10/1/2006 0:00				-21.50															
11/1/2006 0:00		-312.60		-27.10					-417.58			-397.70							
1/1/2007 0:00	-265.50	-281.40		-26.10					-410.92			-373.60							
1/25/2007 0:00																			
2/8/2007 0:00											-566.00								
7/1/2007 0:00	-254.90	-287.20		-27.00					-399.58			-377.90							
1/1/2008 0:00	-260.50	-290.70		-28.80					-410.58			-380.80	-343.30						
1/21/2008 0:00															-346.90				
1/23/2008 0:00																			
7/1/2008 0:00	-278.80	-333.20		-30.80					-433.42			-440.60	-375.10						
8/30/2008 0:00														-288.10					
1/1/2009 0:00	-282.90	-322.60		-34.00					-426.67			-387.90	-376.80		-368.40				
2/3/2009 0:00																			
7/1/2009 0:00	-292.20	-367.40		-36.60					-445.58			-368.50	-376.20		-377.40				
7/1/2009 12:00																			
1/1/2010 0:00	-280.10	-325.30		-36.60					-429.58			-361.20	-382.40		-371.40		-306.94		
1/1/2010 12:00																			
3/24/2010 0:00																			
7/1/2010 0:00	-285.90	-344.00		-38.80					-436.38			-376.80	-374.50		-377.30		-295.47		
7/1/2010 12:00																			
1/1/2011 0:00	-285.40	-333.80		-39.90					-436.70			-379.20	-380.10		-380.10		-308.10		
1/1/2011 12:00																			
2/24/2011 0:00																			
7/1/2011 0:00	-310.60	-402.20		-41.10					-468.16			-360.70	-413.40		-404.50		-313.40		
7/1/2011 12:00																			
9/1/2011 0:00	-323.80	-403.50		-41.70								-360.50	-423.20		-411.00		-319.94		
9/1/2011 12:00																			
10/4/2011 0:00																			
11/1/2011 0:00	-318.00	-384.80		-42.10					-470.40			-363.00	-415.40		-412.30		-316.65		
11/1/2011 12:00																			
1/1/2012 0:00	-307.00	-356.10		-43.10					-456.93			-361.00	-408.90		-402.30		-311.90		
1/2/2012 12:00																			
5/1/2012 0:00	-302.80	-375.60		-44.10					-456.93			-360.60	-403.90		-398.60		-309.74		
5/1/2012 12:00																			
10/9/2012 0:00																			
1/1/2013 0:00	-301.70	-369.40		-42.10					-454.34			-359.70	-405.90		-400.50		-312.56		
1/1/2013 12:00																			
5/1/2013 0:00	-311.40	-387.70		-50.40					-461.13			-365.80	-421.00		-411.20		-311.45	-555.40	
5/1/2013 12:00																			
5/20/2013 0:00																			
8/1/2013 0:00	-323.80	-416.20		-50.00	-424.10	-421.40	-364.20		-472.46			-369.80	-430.40		-422.20		-317.87	-568.20	
8/1/2013 12:00																			
11/1/2013 0:00	-325.50	-385.00		-51.30	-393.80	-391.00	-335.90					-369.40	-431.10		-421.70		-314.73	-572.40	
11/1/2013 12:00																			
12/13/2013 0:00																			
2/1/2014 0:00	-320.50	-373.60		-51.30	-386.50	-383.80	-322.90					-368.50	-438.20		-416.10		-311.78	-565.80	
2/1/2014 12:00																			
2/27/2014 0:00																			
5/1/2014 0:00		-389.30		-56.00	-405.50	-402.00	-335.20					-373.40	-440.20		-417.80		-313.33	-572.70	
5/1/2014 12:00																			
5/11/2014 0:00	-330.20																		
8/1/2014 0:00	-336.90	-411.00		-55.30	-413.10	-409.70	-351.90					-373.50	-445.80		-425.50		-314.87	-581.20	
8/1/2014 12:00																			
10/1/2014 0:00																			
11/1/2014 0:00	-343.30	-405.50	-326.30	-52.80	-415.10	-411.20	-348.80			-333.50	-678.00	-375.90	-446.50	-337.40	-432.50		-316.99	-584.40	
11/1/2014 12:00																			
1/1/2015 0:00	-327.90	-374.40	-317.80	-42.40	-388.50	-386.00	-324.30			-327.80	-665.20	-370.60	-444.80	-319.90	-420.60		-312.52	-568.70	
1/1/2015 12:00																			
1/5/2015 0:00																			-324.30
6/1/2015 0:00	-320.30	-376.00	-313.20	-34.20	-386.30	-384.10	-324.00			-325.20	-659.20	-371.10	-427.60	-318.90	-415.50		-307.36	-563.30	
6/1/2015 12:00																			
6/14/2015 0:00																			
9/1/2015 0:00	-341.60																		
9/14/2015 0:00		-410.50	-326.20	-33.30		-411.50	-352.20			-332.00	-678.60	-375.70	-450.10	-335.70	-429.00		-314.51	-582.80	
9/14/2015 12:00																			
11/1/2015 0:00	-333.10																		
11/3/2015 0:00																			
11/30/2015 0:00		-377.10	-313.20	-20.60		-387.40	-327.20			-322.00	-663.80	-371.90	-435.50	-324.30	-423.60		-313.26	-571.10	
12/4/2015 0:00																			-324.30
1/1/2016 0:00	-326.80																		
1/1/2016 12:00																			
1/5/2016 0:00		-370.90	-308.20	-19.30		-382.70	-319.90			-318.80	-657.20	-368.40	-429.40	-315.90	-421.20		-307.95	-562.70	
4/1/2016 0:00	-324.00																		
4/19/2016 0:00		-368.74	-302.10	-18.50		-374.00	-316.85			-310.10	-650.00	-366.50	-422.27	-310.80	-413.60		-306.26	-556.80	
4/19/2016 12:00																			
6/1/2016 0:00																			
6/1/2016 12:00																			
8/30/2016 0:00	-330.90		-305.30	-24.00					-469.60	-312.00	-656.20	-372.20	-431.10	-321.50		-424.90	-309.65		
8/30/2016 12:00																			
9/12/2016 0:00		-369.90			-387.10	-374.60	-317.70								-414.30			-557.10	
10/3/2016 0:00																	-307.50		
10/6/2016 0:00																			
10/6/2016 12:00																			
10/19/2016 0:00																	-308.40		
10/22/2016 0:00																			
11/1/2016 0:00																			
11/1/2016 12:00																			
11/14/2016 0:00																			
11/21/2016 0:00	-329.00																		
11/22/2016 0:00				-26.98															
12/1/2016 0:00																	-308.10		
12/1/2016 12:00																			
12/6/2016 0:00																	-308.32		
12/28/2016 0:00		-364.79	-304.20							-308.80				-312.80					
12/29/2016 0:00												-370.70							
12/30/2016 0:00					-377.30	-373.90	-313.00	-176.20			-650.90		-427.10					-561.59	
1/5/2017 0:00	-326.20			-17.20											-411.30		-308.10		
1/5/2017 12:00																			
1/12/2017 0:00									-459.70										
2/6/2017 0:00	-338.84																-306.11		
2/6/2017 12:00																			
3/5/2017 0:00																	-304.97		
3/5/2017 12:00																			
3/6/2017 0:00	-327.46																		
3/28/2017 0:00																			
3/30/2017 0:00	-321.90							-161.50	-459.60		-645.30	-369.30	-416.40		-407.20		-304.80		
3/31/2017 0:00		-365.20	-301.10	-23.40	-370.40	-375.60	-313.00			-307.30				-307.60					
3/31/2017 12:00																			
4/6/2017 0:00																			-338.50
5/8/2017 0:00	-318.42																-304.75		
5/8/2017 12:00																			
6/4/2017 0:00	-333.97																-305.41		
6/4/2017 12:00																			
6/14/2017 0:00																			
6/19/2017 0:00																-422.80			
7/6/2017 0:00		-398.50	-303.00	-36.90	-392.80	-390.20	-335.80			-305.30				-320.80		-424.95			-357.00
7/6/2017 12:00																			
7/7/2017 0:00	-334.92							-158.10	-469.80			-370.90			-414.10		-306.37	-563.09	
7/24/2017 0:00											-656.50		-436.10						
8/9/2017 0:00	-339.20																-309.02		
8/9/2017 12:00																			
9/5/2017 0:00	-337.44																-309.10		
9/5/2017 12:00																			
9/5/2017 13:32																			
9/5/2017 13:58																			
9/5/2017 14:22																			
10/2/2017 0:00	-338.16							-159.30	-475.30		-667.40	-376.50	-435.00		-423.60		-310.50	-574.30	
10/2/2017 12:00																			
10/2/2017 13:34																			
10/2/2017 13:59																			
10/2/2017 14:04																			
10/2/2017 14:23																			
10/3/2017 0:00		-397.20		-39.00	-403.80	-400.40	-340.60							-327.20					-320.30
10/4/2017 0:00			-308.30													-425.00			
10/27/2017 0:00													-444.60						
11/6/2017 0:00	-335.84																-309.61		
11/6/2017 12:00																			
11/6/2017 13:35																			
11/6/2017 13:59																			
11/6/2017 14:05																			
11/6/2017 16:44																			
12/4/2017 0:00	-335.59												-442.80				-309.17		
12/4/2017 13:54																			
12/4/2017 14:00																			
12/4/2017 14:06																			
12/4/2017 16:45																			
12/20/2017 0:00																			
12/27/2017 0:00	-334.40							-171.70	-464.20		-663.80	-371.90			-421.10		-308.66	-576.09	
12/27/2017 12:00																			
12/27/2017 13:54																			
12/27/2017 14:01																			
12/27/2017 14:06																			
12/27/2017 16:46																			
12/29/2017 0:00		-378.90	-307.80	-47.00	-392.80	-389.30	-326.30			-308.50			-440.80	-322.80		-422.80			-318.20
1/2/2018 0:00																			
2/5/2018 0:00																			
2/5/2018 10:07																			
2/5/2018 10:08	-332.83																		
2/5/2018 10:11																	-309.69		
2/5/2018 10:13																			
2/5/2018 10:14																			
2/5/2018 12:00																			
2/5/2018 15:04																			
3/5/2018 0:00																			
3/5/2018 12:00	-330.97																-309.47		
3/29/2018 0:00																			
3/29/2018 9:20									-462.90										
3/29/2018 10:25												-378.20							

State #	58-02-901	58-03-701	None	None	40-49-601	58-01-202	58-09-303	None	57-24-503	None	58-09-201	57-16-201	5804415	5804416	5804417	5804514	5805901	5806708	5809201	5809303	5817504	None		
CUWCD #	M-13-001P	M-14-002P	N2-14-003P	E-14-053P	M-18-TWDB-Cove	M-17-TWDB Kempner	M-17-TWDB Briggs	N1-16-006P	M-17-CTGCD_Mattingly	M-17-CTGCD_Konecci	M-17-CTGCD_Allen	M-17-CTGCD_Fischer	E-13-054P	E-15-056P	E-17-016P	E-02-1409G	N2-02-013G	N2-14-003P	M-17-CTGCD_Allen	M-17-TWDB Briggs	M-5817504	M-17-CTGCD_Konecci	E-10-018P	M-5811102
Well Name	StillmanValley Monitor Well	Gault - Middle Trinity	RS Materials	Pedigo				Ronald Ham	Mattingly	Konecci	Allen	Fischer	Lee	Goodwill	Brown	H. Spring Park	City of Holland	RS Materials	Allen	(blank)	TenEyck	Konecci	Sloan	Basey
Highest	-454.00	-623.72	-696.30	-400.10	-273.23	-81.30	-427.76	-267.08	-337.27	-338.70	-398.07	-212.38	-422.89	-410.00	-420.13	-329.60	-50.75	-707.28	-411.50	-446.28	-272.75	-387.30	-436.15	-631.15
Lowest	-523.79	-685.38	-730.94	-430.10	-284.07	-195.80	-450.72	-474.33	-340.30	-398.00	-418.20	-225.62	-422.89	-410.00	-420.13	-374.60	-56.08	-730.94	-416.30	-447.96	-272.75	-388.80	-436.15	-631.15
1/1/2003 0:00																								
1/29/2003 0:00																								
7/1/2003 0:00																								
1/1/2004 0:00																								
2/19/2004 0:00																								
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1/10/2005 0:00																								
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1/25/2007 0:00																								
2/8/2007 0:00																								
7/1/2007 0:00																								
1/1/2008 0:00																								
1/21/2008 0:00																								
1/23/2008 0:00																								
7/1/2008 0:00																								
8/30/2008 0:00																								
1/1/2009 0:00																								
2/3/2009 0:00																								
7/1/2009 0:00						-97.32																		
7/1/2009 12:00					-277.73																			
1/1/2010 0:00						-84.67	-427.97		-337.38															
1/1/2010 12:00					-273.23																			
3/24/2010 0:00																								
7/1/2010 0:00						-84.71	-427.76		-337.27															
7/1/2010 12:00					-276.32																			
1/1/2011 0:00						-91.56	-430.89		-337.42															
1/1/2011 12:00					-273.58																			
2/24/2011 0:00																								
7/1/2011 0:00						-97.59	-437.89		-338.13															
7/1/2011 12:00					-274.78																			
9/1/2011 0:00						-102.00			-339.31															
9/1/2011 12:00					-279.86																			
10/4/2011 0:00																								
11/1/2011 0:00						-100.99	-444.40		-338.50		-408.18													
11/1/2011 12:00					-280.07																			
1/1/2012 0:00						-98.49	-442.74		-338.37		-406.30													
1/2/2012 12:00					-278.81																			
5/1/2012 0:00						-92.28	-438.81		-338.66		-398.07													
5/1/2012 12:00					-276.98																			
10/9/2012 0:00																								
1/1/2013 0:00						-98.91	-446.13		-338.83		-403.08	-218.47												
1/1/2013 12:00					-280.22																			
5/1/2013 0:00						-97.72			-338.87		-402.45	-218.88												
5/1/2013 12:00					-279.27																			
5/20/2013 0:00	-476.40																							
8/1/2013 0:00	-478.59					-99.63	-448.42		-338.96		-404.83	-225.45												
8/1/2013 12:00					-281.73																			
11/1/2013 0:00	-472.40					-100.00			-338.99		-405.83	-222.98												
11/1/2013 12:00					-280.36																			
12/13/2013 0:00																								
2/1/2014 0:00	-464.90	-630.00				-99.77			-338.82		-404.89													
2/1/2014 12:00					-276.97																			
2/27/2014 0:00	-477.40																							
5/1/2014 0:00	-473.70	-645.00				-98.87	-447.29		-338.98		-405.21													
5/1/2014 12:00					-276.81																			
5/11/2014 0:00																								
8/1/2014 0:00	-477.09	-655.90				-100.09	-448.41		-339.06		-406.32	-224.91												
8/1/2014 12:00					-277.53																			
10/1/2014 0:00																								
11/1/2014 0:00	-479.79	-650.98				-101.46	-450.72		-339.01		-407.45	-224.34												
11/1/2014 12:00					-279.04																			
1/1/2015 0:00	-468.29	-648.91		-412.40		-100.32	-449.74		-338.90		-406.51	-223.19												
1/1/2015 12:00					-278.56																			
1/5/2015 0:00																								
6/1/2015 0:00	-465.29	-630.83		-411.60		-97.48	-443.67				-403.68	-219.65												
6/1/2015 12:00					-273.93																			
6/14/2015 0:00							-446.92																	
9/1/2015 0:00																								
9/14/2015 0:00	-478.70	-652.11				-96.14					-405.49	-223.84												
9/14/2015 12:00					-277.20																			
11/1/2015 0:00																								
11/3/2015 0:00																								
11/30/2015 0:00	-473.00	-642.10				-94.14	-446.60				-405.04	-219.49												
12/4/2015 0:00																								
1/1/2016 0:00						-88.66	-445.45				-403.70	-216.98												
1/1/2016 12:00					-275.91																			
1/5/2016 0:00	-467.40	-639.33																						
4/1/2016 0:00																								
4/19/2016 0:00	-459.09	-629.44				-85.61	-443.86				-401.55	-214.67												
4/19/2016 12:00					-275.49																			
6/1/2016 0:00						-83.64	-442.94				-406.45	-213.65												
6/1/2016 12:00					-273.33																			
8/30/2016 0:00	-461.40	-629.95				-87.62	-444.12				-408.73	-217.75												
8/30/2016 12:00					-276.92																			
9/12/2016 0:00																								
10/3/2016 0:00																								
10/6/2016 0:00						-88.87	-444.33				-409.11	-217.39												
10/6/2016 12:00					-277.51																			
10/19/2016 0:00		-634.53																						
10/22/2016 0:00																								
11/1/2016 0:00						-90.24	-444.70				-409.47	-218.21												
11/1/2016 12:00					-277.92																			
11/14/2016 0:00																								
11/21/2016 0:00																								
11/22/2016 0:00																								
12/1/2016 0:00						-91.24	-444.46				-408.94	-217.98												
12/1/2016 12:00					-277.49																			
12/6/2016 0:00		-633.60																						
12/28/2016 0:00				-406.80																				
12/29/2016 0:00																								
12/30/2016 0:00	-458.20																							
1/5/2017 0:00		-635.50				-92.31	-444.46				-408.95	-217.68												
1/5/2017 12:00					-277.10																			
1/12/2017 0:00																								
2/6/2017 0:00						-92.94	-444.40		-340.00		-408.49	-218.95												
2/6/2017 12:00					-276.96																			
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3/5/2017 12:00					-277.04																			
3/6/2017 0:00																								
3/28/2017 0:00		-629.20																						
3/30/2017 0:00	-455.70							-421.80																
3/31/2017 0:00						-90.05	-444.10		-340.30		-407.13	-221.75												
3/31/2017 12:00					-276.73																			
4/6/2017 0:00				-402.70																				
5/8/2017 0:00						-90.18	-444.22		-340.00		-407.31	-217.53												
5/8/2017 12:00					-277.14																			
6/4/2017 0:00		-623.72				-91.49	-444.38		-340.10		-407.58	-216.77												
6/4/2017 12:00					-278.84																			
6/14/2017 0:00										-387.56														
6/19/2017 0:00																								
7/6/2017 0:00		-630.74		-409.20		-94.02	-444.89		-339.70	-388.09	-408.44	-218.63												
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7/7/2017 0:00	-454.00							-431.80																
7/24/2017 0:00																								
8/9/2017 0:00		-634.75				-97.19	-445.48		-339.90	-388.74	-410.60	-225.42												
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9/5/2017 13:58										-338.70														
9/5/2017 14:22									-339.80															
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10/2/2017 12:00					-283.60																			
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10/2/2017 13:59										-389.00														
10/2/2017 14:04												-222.44												
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10/3/2017 0:00				-415.10																				
10/4/2017 0:00																								
10/27/2017 0:00																								
11/6/2017 0:00		-644.98				-99.03	-446.12																	
11/6/2017 12:00					-282.41																			
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11/6/2017 13:59										-386.90														
11/6/2017 14:05												-221.69												
11/6/2017 16:44									-339.10															
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12/4/2017 13:54											-412.30													
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2/5/2018 10:11																								
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2/5/2018 15:04									-339.40															
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3/29/2018 0:00									-338.90	-387.00	-413.70	-224.56												
3/29/2018 9:20																								
3/29/2018 10:25																								

Clearwater UWCD - Middle Trinity Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	58-02-302	58-04-405	None	58-05-901	58-04-407	58-04-406	58-04-514	None	None	None	None	40-58-903	None	None	58-04-104	None	40-57-601	58-03-504	None	58-02-901	58-03-701	None	None	40-49-601	58-01-202	58-09-303	None	57-24-503	None	58-09-201	57-16-201	5804415	5804416	5804417	5804514	5805901	5806708	5809201	5809303	5817504	None		
CUWCD #	M-16-001G	E-05-083P	N2-11-003G	N2-02-013G	E-02-1407G	E-02-1406G	E-02-1409G	N2-07-006G	E-03-444P	N2-04-011P	E-07-011P	E-06-063P	N2-07-003G	N2-08-002P	E-08-005P	N1-09-003P	M-09-001P	E-10-003P	N2-10-003P	M-13-001P	M-14-002P	N2-14-003P	E-14-053P	M-18-TWDB-Cove	M-17-TWDB Kempner	M-17-TWDB Briggs	N1-16-006P	M-17-CTGCD_Mattingly	M-17-CTGCD_Konecci	M-17-CTGCD_Allen	M-17-CTGCD_Fischer	E-13-054P	E-15-056P	E-17-016P	E-02-1409G	N2-02-013G	N2-14-003P	M-17-CTGCD_Allen	M-17-TWDB Briggs	M-5817504	M-17-CTGCD_Konecci	E-10-018P	M-5811102
Well Name	River Ridge Monitor Well	Lester (Murphy)	UMHB	City of Holland	Reavis	H. Springs	H. Spring Park	Maxdale Cowboy Church	McLemore	Central Texas Strike Zone	Brooks	Veterans Monitor Well	Killeen Crushed Stone	Salado ISD (HS)	Stephenson	Laurie Gehring	Copperas Cove - Middle	Christian	James Construction	StillmanValley Monitor Well	Gault - Middle Trinity	RS Materials	Pedigo				Ronald Ham	Mattingly	Konecci	Allen	Fischer	Lee	Goodwill	Brown	H. Spring Park	City of Holland	RS Materials	Allen	(blank)	TenEyck	Konecci	Sloan	Basey
Highest	-254.90	-281.40	-301.10	-17.20	-370.40	-373.90	-313.00	-62.00	-399.58	-305.30	-566.00	-359.70	-343.30	-288.10	-346.90	-422.80	-295.47	-555.40	-318.20	-454.00	-623.72	-696.30	-400.10	-273.23	-81.30	-427.76	-267.08	-337.27	-338.70	-398.07	-212.38	-422.89	-410.00	-420.13	-329.60	-50.75	-707.28	-411.50	-446.28	-272.75	-387.30	-436.15	-631.15
Lowest	-348.96	-438.50	-326.30	-56.08	-441.20	-438.00	-377.80	-179.50	-490.80	-333.50	-709.57	-440.60	-469.50	-345.00	-444.50	-439.50	-321.18	-605.50	-357.00	-523.79	-685.38	-730.94	-430.10	-284.07	-195.80	-450.72	-474.33	-340.30	-398.00	-418.20	-225.62	-422.89	-410.00	-420.13	-374.60	-56.08	-730.94	-416.30	-447.96	-272.75	-388.80	-436.15	-631.15
3/29/2018 10:44								-178.50																																			
3/29/2018 11:39																																											
3/29/2018 12:00	-331.39																-309.69																										
3/29/2018 13:10																				-479.79																							
3/29/2018 13:38											-669.40																																
3/29/2018 14:05																						-702.30																					
3/29/2018 14:50																											-447.23																
3/29/2018 15:00													-443.60																														
3/29/2018 15:16																		-576.30																									
3/29/2018 15:35															-419.10																												
3/29/2018 15:53																							-413.40																				
3/30/2018 9:37																			-320.95																								
3/30/2018 9:58						-393.30																																					
3/30/2018 10:00					-396.90																																						
3/30/2018 10:45		-384.90																																									
3/30/2018 10:55																																											
3/30/2018 11:01							-329.00																																				
3/30/2018 12:00																					-653.69																						
3/30/2018 12:05														-325.20																													
3/30/2018 13:06				-46.19																																							
3/30/2018 14:33			-304.40																																								
3/30/2018 14:42										-309.70																																	
3/30/2018 15:00																-425.90																											
4/9/2018 12:00																																											
4/24/2018 14:34				-46.41																																							
5/7/2018 0:00																												-339.20	-387.30	-414.50	-222.63												
5/7/2018 12:00	-333.69																-308.58																										
5/29/2018 15:03				-46.62																																							
6/3/2018 19:00																	-310.72																										
6/4/2018 0:00																												-339.50	-387.90	-415.60	-224.31												
6/4/2018 3:00	-333.43																																										
6/11/2018 10:20																																											
6/21/2018 9:45									-481.20																																		
6/21/2018 10:20												-380.72																															
6/21/2018 10:55																																											
6/21/2018 12:00	-337.93																-310.87							-281.07	-103.16	-447.23																	
6/21/2018 12:10								-174.80																																			
6/21/2018 13:38																				-496.71																							
6/21/2018 14:25																						-719.20																					
6/21/2018 15:06																											-464.66																
6/21/2018 15:55															-430.00																												
6/22/2018 8:44																			-328.68																								
6/22/2018 9:20						-421.40																																					
6/22/2018 9:22					-425.60																																						
6/22/2018 9:35		-430.00																																									
6/22/2018 9:42																																											
6/22/2018 9:47							-367.90																																				
6/22/2018 10:25				-47.18																																							
6/22/2018 11:28			-311.00																																								
6/22/2018 11:37										-307.80																																	
6/22/2018 11:57																-430.30																											
6/26/2018 8:48													-464.80																														
6/26/2018 9:12																																											
6/26/2018 11:15																		-587.90																									
6/26/2018 11:35														-338.60																													
6/26/2018 11:50																							-425.10																				
7/2/2018 12:00																					-659.82																						
7/5/2018 0:00																												-339.40	-398.00	-416.70	-223.83												
7/17/2018 13:42						-427.20																																					
7/17/2018 13:45					-430.60																																						
7/17/2018 14:00							-365.70																																				
7/17/2018 14:05		-424.70																																									
7/19/2018 9:10																			-332.59																								
7/19/2018 9:21																							-430.00																				
7/19/2018 11:05																		-600.69																									
7/19/2018 12:00	-343.19																-312.26				-663.13																						
7/20/2018 9:30														-342.20																													
7/20/2018 9:48				-47.65																																							
7/20/2018 10:24																						-727.29																					
7/20/2018 11:24																																											
7/20/2018 11:48																											-474.33																
7/20/2018 12:27																				-510.65																							
7/20/2018 13:50								-177.10																																			
7/20/2018 14:20																																											
7/20/2018 15:24												-382.49																															
7/20/2018 15:58			-310.30																																								
7/20/2018 16:07										-309.20																																	
7/20/2018 16:30																-439.50																											
7/23/2018 8:35																																											
7/23/2018 9:05													-469.50																														
7/23/2018 9:45															-437.30																												
7/23/2018 10:04									-490.40																																		
8/6/2018 0:00																												-339.50	-389.30	-418.20	-225.58												
8/6/2018 12:00	-347.44																-314.99				-669.80			-283.44	-105.04	-448.45																	
8/13/2018 12:00	-348.19																-316.32				-672.24					-448.57																	
8/20/2018 10:10																-435.77																											
8/20/2018 10:32										-311.90																																	
8/20/2018 10:40			-314.00																																								
8/20/2018 11:45																																											
8/20/2018 12:00	-347.64																-317.35				-668.61																						
8/20/2018 12:17												-383.67																															
8/20/2018 12:43								-179.50																																			
8/20/2018 13:04																				-521.52																							
8/20/2018 13:06													-466.20																														
8/20/2018 13:30																						-730.84																					
8/20/2018 14:10																											-471.35																
8/20/2018 14:25																																											
8/20/2018 14:40																		-605.50																									
8/20/2018 14:56															-443.30																												
8/20/2018 15:10																							-430.10																				
8/20/2018 15:17														-345.00																													
8/20/2018 15:45				-48.35																																							
8/20/2018 16:10																			-334.60																								
8/21/2018 8:35																																											
8/21/2018 8:57									-490.30																																		
8/21/2018 9:32						-438.00																																					
8/21/2018 9:50							-377.80																																				
8/21/2018 21:34					-441.20																																						
8/21/2018 21:45		-438.50																																									
9/3/2018 12:00	-348.96																-319.63				-667.79			-284.07	-105.95	-448.76																	
9/10/2018 11:15													-465.60																														
9/27/2018 7:00																					-681.81																						
9/27/2018 8:55										-311.70																																	
9/27/2018 9:04			-313.60																																								
9/27/2018 9:22																			-333.96																								
9/27/2018 10:17		-412.90																																									
9/27/2018 10:22							-357.40																																				
9/27/2018 10:48						-423.50																																					
9/27/2018 10:50					-427.10																																						
9/27/2018 11:35														-340.60																													
9/27/2018 12:58				-49.35																																							
9/27/2018 14:52																-434.11																											
9/28/2018 9:00																							-428.70																				
9/28/2018 9:18															-444.50																												
9/28/2018 9:33													-462.60																														
9/28/2018 9:43																											-467.65																
9/28/2018 10:00																		-601.80																									
9/28/2018 10:09																																											
9/28/2018 11:12																				-523.79																							
9/28/2018 11:51								-179.10																																			
9/28/2018 12:00																	-321.18							-283.72	-195.80	-448.27																	
9/28/2018 12:33																																											
9/28/2018 13:36												-383.87																															
9/28/2018 14:05									-482.80																																		
10/29/2018 14:11													-456.60																														
11/5/2018 12:00	-346.51																-318.97				-674.76			-281.21	-102.02	-446.96																	
12/3/2018 12:00	-342.39																-318.89				-674.76			-280.06	-98.55	-446.94																	
12/26/2018 8:55									-470.20																																		
12/26/2018 10:32												-381.52																															
12/26/2018 11:00																											-284.59																
12/26/2018 11:47								-142.50																																			
12/26/2018 12:00	-339.54																-319.56							-278.95	-95.94	-446.67																	
12/26/2018 13:22																				-486.70																							
12/26/2018 14:00																		-583.59																									
12/26/2018 14:20															-429.90																												
12/27/2018 8:47																			-325.03																								
12/27/2018 9:03																							-418.20																				
12/27/2018 9:33						-395.40																																					
12/27/2018 9:35					-398.40																																						
12/27/2018 10:07		-381.00																																									
12/27/2018 10:13							-330.80																																				
12/27/2018 11:00														-327.40																													
12/27/2018 12:00																					-666.69																						
12/27/2018 14:01			-306.70																																								
12/27/2018 14:12										-309.40																																	
12/27/2018 14:29																-430.78																											
12/31/2018 12:00																												-338.90	-387.80	-413.70	-216.86												
1/2/2019 12:25				-50.75																																-50.75							
2/4/2019 12:00	-333.81	-384.61															-315.06				-666.32			-277.77	-81.30	-446.28		-338.90	-387.80	-412.60	-214.68							-412.60	-446.28		-387.80		
2/11/2019 9:30													-440.80																														
3/4/2019 10:30													-440.40																														
3/4/2019 12:00	-331.88	-379.71															-313.30				-663.32			-278.16	-84.34	-446.40		-339.30	-387.60	-412.40	-213.66							-412.40	-446.40		-387.60		
3/26/2019 9:17									-465.50																																		
3/26/2019 9:35																																											
3/26/2019 10:03																																											
3/26/2019 10:11																																											
3/26/2019 11:05																											-273.72																
3/26/2019 11:48								-113.30																																			
3/26/2019 12:00	-330.77																-312.41							-278.78	-85.90	-446.54													-446.54				
3/26/2019 12:05																																											
3/26/2019 12:21												-379.50																															
3/26/2019 13:05																				-480.67																							
3/26/2019 13:47																						-711.41															-711.41						
3/26/2019 14:24													-439.80																														
3/26/2019 14:51																		-575.09																									
3/26/2019 15:10															-423.30																												
3/26/2019 15:25																							-414.20																				
3/28/2019 10:05																			-321.48																								
3/28/2019 10:50							-329.60																												-329.60								
3/28/2019 11:20						-391.20																																					

Clearwater UWCD - Middle Trinity Monitor Wells

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State #	58-02-302	58-04-405	None	58-05-901	58-04-407	58-04-406	58-04-514	None	None	None	None	40-58-903	None	None	58-04-104	None	40-57-601	58-03-504	None	58-02-901	58-03-701	None	None	40-49-601	58-01-202	58-09-303	None	57-24-503	None	58-09-201	57-16-201	5804415	5804416	5804417	5804514	5805901	5806708	5809201	5809303	5817504	None		
CUWCD #	M-16-001G	E-05-083P	N2-11-003G	N2-02-013G	E-02-1407G	E-02-1406G	E-02-1409G	N2-07-006G	E-03-444P	N2-04-011P	E-07-011P	E-06-063P	N2-07-003G	N2-08-002P	E-08-005P	N1-09-003P	M-09-001P	E-10-003P	N2-10-003P	M-13-001P	M-14-002P	N2-14-003P	E-14-053P	M-18-TWDB-Cove	M-17-TWDB Kempner	M-17-TWDB Briggs	N1-16-006P	M-17-CTGCD_Mattingly	M-17-CTGCD_Konecci	M-17-CTGCD_Allen	M-17-CTGCD_Fischer	E-13-054P	E-15-056P	E-17-016P	E-02-1409G	N2-02-013G	N2-14-003P	M-17-CTGCD_Allen	M-17-TWDB Briggs	M-5817504	M-17-CTGCD_Konecci	E-10-018P	M-5811102
Well Name	River Ridge Monitor Well	Lester (Murphy)	UMHB	City of Holland	Reavis	H. Springs	H. Spring Park	Maxdale Cowboy Church	McLemore	Central Texas Strike Zone	Brooks	Veterans Monitor Well	Killeen Crushed Stone	Salado ISD (HS)	Stephenson	Laurie Gehring	Copperas Cove - Middle	Christian	James Construction	StillmanValley Monitor Well	Gault - Middle Trinity	RS Materials	Pedigo				Ronald Ham	Mattingly	Konecci	Allen	Fischer	Lee	Goodwill	Brown	H. Spring Park	City of Holland	RS Materials	Allen	(blank)	TenEyck	Konecci	Sloan	Basey
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Lowest	-348.96	-438.50	-326.30	-56.08	-441.20	-438.00	-377.80	-179.50	-490.80	-333.50	-709.57	-440.60	-469.50	-345.00	-444.50	-439.50	-321.18	-605.50	-357.00	-523.79	-685.38	-730.94	-430.10	-284.07	-195.80	-450.72	-474.33	-340.30	-398.00	-418.20	-225.62	-422.89	-410.00	-420.13	-374.60	-56.08	-730.94	-416.30	-447.96	-272.75	-388.80	-436.15	-631.15
3/28/2019 12:00																					-662.54																						
3/28/2019 12:52														-321.90																													
3/28/2019 13:50				-52.28																																-52.28							
3/28/2019 15:29			-305.10																																								
3/28/2019 15:37										-310.00																																	
3/28/2019 15:56																-429.90																											
4/1/2019 12:00		-388.49																										-339.40	-387.90	-412.30	-213.84							-412.30			-387.90		
5/1/2019 9:27													-439.30																														
5/6/2019 3:00	-333.90																																										
5/6/2019 7:00																	-315.36																										
5/6/2019 8:00																										-446.49													-446.49				
5/6/2019 11:00																								-278.37																			
5/6/2019 12:00		-388.37									-679.15										-658.15							-338.90	-387.70	-411.80	-213.45							-411.80			-387.70		
6/3/2019 12:00		-395.23									-679.92						-315.95				-658.09			-277.67	-83.44	-446.36		-339.00	-387.30	-411.50	-212.94							-411.50	-446.36		-387.30		
6/4/2019 4:00	-333.33																																										
6/5/2019 9:15													-437.00																														
6/26/2019 8:48									-470.10																																		
6/26/2019 9:18																																											
6/26/2019 9:48																																											
6/26/2019 9:56																																											
6/26/2019 10:50																											-267.08																
6/26/2019 12:00	-335.11																-314.99				-658.16			-278.03		-446.38													-446.38				
6/26/2019 12:03												-379.03																															
6/26/2019 12:22								-62.00																																			
6/26/2019 12:49																				-477.07																							
6/26/2019 13:24																						-707.28															-707.28						
6/26/2019 14:05													-437.60																														
6/26/2019 14:30																		-569.30																									
6/26/2019 14:50															-423.50																												
6/26/2019 15:03														-328.40																													
6/26/2019 15:16																			-323.54																								
6/27/2019 8:39										-307.80																																	
6/27/2019 8:48			-307.30																																								
6/27/2019 9:08																-429.94																											
6/27/2019 10:55				-53.42																																-53.42							
6/27/2019 13:42						-398.70																																					
6/27/2019 14:30							-336.90																												-336.90								
6/27/2019 15:58																									-84.79																		
7/1/2019 0:00											-679.67																																
7/1/2019 12:00		-394.64																										-339.20	-387.30	-411.70	-212.38							-411.70			-387.30		
8/5/2019 7:00																					-664.18																						
8/5/2019 12:00		-427.34									-686.45						-314.55							-278.08	-88.63	-446.69		-339.30	-388.50	-412.90	-215.86							-412.90	-446.69		-388.50		
9/2/2019 12:00											-696.16																	-339.40	-388.80	-414.80	-219.79							-414.80			-388.80		
9/3/2019 12:00																	-315.28				-671.89			-279.20	-91.74	-447.28													-447.28				
9/25/2019 10:56							-374.60																												-374.60								
9/25/2019 13:40														-343.60																													
9/26/2019 10:44																-436.97																											
9/26/2019 11:09			-316.70																																								
9/26/2019 14:00				-54.62																																-54.62							
9/26/2019 23:35										-313.00																																	
9/27/2019 9:42									-490.80																																		
9/27/2019 10:00																																											
9/27/2019 10:48												-382.27																															
9/27/2019 11:17																											-282.38																
9/27/2019 12:00																	-316.46				-684.63			-279.98	-94.22	-447.71													-447.71				
9/27/2019 12:06								-142.10																																			
9/27/2019 13:33																				-487.40																							
9/27/2019 14:10																						-730.94															-730.94						
9/27/2019 15:19																		-603.40																									
9/27/2019 15:35															-440.10																												
10/6/2019 12:00																												-339.40															
10/7/2019 12:00		-435.60									-704.13																		-388.50	-416.30	-222.81							-416.30			-388.50		
10/8/2019 11:36						-433.60																																					
10/9/2019 11:35																																											-631.15
10/9/2019 12:06																																								-272.75			
11/4/2019 12:00																	-315.87				-685.38			-278.62	-96.73	-447.96			-388.10	-416.10	-221.27							-416.10	-447.96		-388.10		
12/2/2019 12:00																	-314.47				-683.26			-277.71		-447.83													-447.83				
12/3/2019 12:00																									-97.17																		
12/26/2019 9:48									-475.50																																		
12/26/2019 10:11																																											
12/26/2019 10:40																																											
12/26/2019 10:49																																											
12/26/2019 11:26												-384.70																															
12/26/2019 12:00																	-316.24							-276.72	-97.48	-447.62													-447.62				
12/26/2019 12:28																											-271.35																
12/26/2019 13:22								-143.50																																			
12/26/2019 14:04																																											
12/26/2019 14:38																				-493.40																							
12/26/2019 15:41																		-599.30																									
12/26/2019 16:02															-438.50																												
12/26/2019 16:43											-709.57																																
12/27/2019 6:29																																										-436.15	
12/27/2019 6:53																																		-420.13									
12/27/2019 9:40						-408.50																																					
12/27/2019 10:09																																											
12/27/2019 10:25							-345.40																												-345.40								
12/27/2019 12:00																					-685.25																						
12/27/2019 12:17														-335.80																													
12/27/2019 12:18		-402.01																																									
12/27/2019 12:45																							-400.10																				
12/27/2019 13:20																																	-410.00										
12/27/2019 21:48																																-422.89											
12/30/2019 9:40										-317.90																																	
12/30/2019 10:13																-437.68																											
12/30/2019 12:27				-56.08																																-56.08							
12/30/2019 14:05																			-332.30																								
12/30/2019 15:08			-313.70																																								
Since Last	-1.78	33.59	3.00	-1.46	28.70	25.10	29.20	-1.40	15.30	-4.90	-5.44	-2.43	-0.60	7.80	1.60	-0.71	-1.77	4.10	-8.76	-6.00	-1.99	-23.66	14.10	0.99	-0.31	0.21	11.03	0.00	0.40	0.20	1.54				29.20	-1.46	-23.66	0.20	0.21		0.40		
Historic	-69.61	-89.41	12.60	-32.38	25.70	12.90	18.80	32.70	-57.92	15.60	-143.57	13.00	-60.80	-47.70	-91.60	-12.78	-9.30	-43.90	-8.00	-17.00	-55.25	-34.44	12.30	1.01	-0.16	-19.65	150.45	-2.02	-0.54	-7.92	-2.80	0.00	0.00	0.00	-15.80	-5.33	-19.53	-3.50	-1.34	0.00	-0.30	0.00	0.00

Minimum Number of Measurements: 3

Average Drawdown **-3.17 ft/yr**

Drawdown of Water Level

Increase of Water Level

E-line Measurement
Sonic Measurement
TWDB Measurement
Air line Measurement
No Reading Available

The desired future conditions established by Clearwater Underground Water Conservation District for the *Middle Trinity* *is no more than 286 feet of drawdown after 50 years.*
The average drawdown goal per year is -5.72 feet.

Clearwater UWCD - Lower Trinity Monitor Wells

Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	40-53-406	40-54-701	40-61-509	40-62-401	40-62-501	40-63-501	58-05-202	58-06-102	58-06-301	40-57-602	None	58-06-201	40-53-405	None	None	None	40-35-404	5806202	5806301	5817902	5829603	None
CUWCD #	N2-02-022G	M-13-006G	M-13-007G	N2-03-001G	M-13-005G	N2-02-034G	N2-02-024G	N2-02-001G	N2-04-010P	M-09-002P	N2-10-001P	N2-13-002P	M-13-039G	N2-14-005P	N2-14-004P	M-17-CTGCD_Carlile	M-18-TWDB-Gatesville	N2-14-005P	N2-04-010P	M-5817902	M-5829603	M-17-CTGCD_Carlile
Well Name	Moffat WSC #1	Cearley-City of Temple #2	Pea Ridge-City of Temple #3	Cen. TX Vet. Hospital	Acres-City of Temple #1	East Bell WSC #1	Armstrong WSC #1	Bell Co. WCID #2	East Bell WSC #2	Copperas Cove - Lower	Armstrong WSC #2	Jack Hilliard Dozer and Materials	CUWCD-Tanglewood Monitor Well	CTWSC System Split Well	CTWSC Doc Curb	Carlile	0	CTWSC System Split Well	East Bell WSC #2	Westwood Boys Ranch	City of Taylor #3	Carlile
Highest	-329.70	-259.00	-31.00	-71.60	-136.13	-217.45	-245.80	-36.00	-268.00	-290.13	-305.80	-173.40	-268.60	-179.11	-452.84	-370.70	-477.64	-488.40	-293.99	-384.20	-207.94	-353.59
Lowest	-583.70	-485.78	-285.25	-421.09	-366.03	-289.06	-265.50	-274.52	-378.00	-299.79	-373.10	-193.89	-478.91	-212.42	-485.03	-372.20	-543.86	-570.80	-301.88	-384.20	-211.57	-354.18
5/30/1944 0:00				-73.00																		
6/24/1944 0:00				-71.60																		
3/1/1952 0:00			-31.00																			
9/30/1955 0:00								-50.00														
12/29/1961 0:00								-36.00														
9/1/1966 0:00			-134.13		-136.13																	
6/1/1968 0:00		-259.00																				
1/14/1974 0:00													-268.6									
3/1/1978 0:00			-94.19																			
1/1/2003 0:00	-332.70																					
7/1/2003 0:00	-415.50																					
1/1/2004 0:00	-333.70																					
7/1/2004 0:00	-413.80																					
1/1/2005 0:00	-337.70																					
7/1/2005 0:00																						
1/1/2006 0:00																						
7/1/2006 0:00																						
9/1/2006 0:00																						
10/1/2006 0:00																						
11/1/2006 0:00																						
1/1/2007 0:00	-330.70																					
7/1/2007 0:00	-379.00																					
1/1/2008 0:00	-329.70																					
7/1/2008 0:00	-355.90																					
1/1/2009 0:00	-434.40																					
7/1/2009 0:00	-355.90																					
7/1/2009 12:00																	-480.05					
1/1/2010 0:00	-397.40									-291.16												
1/1/2010 12:00																	-477.64					
7/1/2010 0:00	-406.70									-292.71												
7/1/2010 12:00																	-482.23					
1/1/2011 0:00	-360.50									-290.13												
1/1/2011 12:00																	-481.64					
7/1/2011 0:00	-346.50								-268.00	-290.25												
7/1/2011 12:00																	-492.01					
9/1/2011 0:00	-457.10									-291.93												
9/1/2011 14:00																	-504.69					
11/1/2011 0:00	-454.80	-456.40								-292.44												
11/1/2011 12:00																	-495.66					
1/1/2012 0:00	-453.20								-378.00	-293.85												
1/5/2012 13:00																	-492.23					
5/1/2012 0:00	-456.50								-278.00	-293.47												
5/1/2012 12:00																	-494.64					
1/1/2013 0:00	-468.80								-280.00	-294.22												
1/1/2013 12:00																	-504.42					
5/1/2013 0:00	-466.30								-285.00	-294.96												
5/1/2013 12:00																	-504.54					
8/1/2013 0:00	-473.10								-282.00	-295.11	-329.83											
8/1/2013 12:00																	-507.21					
10/25/2013 0:00											-328											
11/1/2013 0:00	-466.60								-290.00	-295.85		-173.4										
11/1/2013 12:00																	-504.65					
12/5/2013 0:00												-177.7										
2/1/2014 0:00	-466.20					-230.00			-290.00	-295.70												
2/1/2014 12:00																	-500.52					
5/1/2014 0:00	-469.50					-230.00			-285.00	-296.14		-174										
5/1/2014 12:00																	-505.63					
8/1/2014 0:00	-471.70	-456.00	-239.20		-348.68	-230.00			-285.00	-296.00		-176										
8/1/2014 12:00																	-501.99					
9/23/2014 0:00		-465.05																				
9/26/2014 0:00			-241.10																			
11/1/2014 0:00	-470.40					-235.00			-290.00	-296.91		-177.79										
11/1/2014 12:00																	-509.54					
11/17/2014 0:00							-247.90				-329.6											
12/16/2014 0:00							-246.30				-327.4											
1/1/2015 0:00		-456.00	-239.70		-340.10	-235.00			-290.00	-296.84		-175.1										
1/1/2015 12:00																	-504.68					
1/6/2015 0:00	-467.79																					
1/9/2015 0:00							-246.40				-327.7											
2/1/2015 0:00		-456.20																				
2/11/2015 0:00							-246.70				-327.7											
3/5/2015 0:00	-468.79																					
3/11/2015 0:00							-247.00				-328.3											
3/26/2015 0:00		-465.05	-241.60																			
4/9/2015 0:00	-468.70						-247.90				-329.2											
5/1/2015 0:00	-469.00																					
5/12/2015 0:00							-245.80				-330.3											
5/20/2015 0:00															-454							
6/1/2015 0:00	-467.80				-339.50	-230.00			-290.00	-296.69		-175.1										
6/1/2015 12:00																	-500.88					
6/4/2015 0:00							-248.50				-331											
6/5/2015 0:00		-456.20																				
7/1/2015 0:00	-468.50					-230.00			-290.00													
7/8/2015 0:00							-248.70				-330.6											
8/3/2015 0:00	-485.20					-265.00			-290.00													
9/2/2015 0:00	-481.10																					
9/5/2015 0:00						-275.00			-290.00													
9/7/2015 0:00							-247.30				-330.6											
9/14/2015 0:00		-469.26			-347.84					-297.06		-180.79										
9/14/2015 12:00																	-515					
10/1/2015 0:00	-477.70																					
11/2/2015 0:00	-478.00																					
11/5/2015 0:00						-270.00	-248.80		-290.00		-330.8											
11/30/2015 0:00		-468.20			-349.07					-297.43		-177.7										
11/30/2015 12:00																	-509.45					
12/2/2015 0:00	-471.70																					
1/1/2016 12:00																	-507.8					
1/5/2016 0:00	-470.80	-467.91			-349.98	-260.00	-249.00		-295.00	-297.43	-331.1	-175.89										
3/1/2016 0:00	-470.90																					
4/4/2016 0:00	-472.20																					
4/5/2016 0:00						-260.00	-250.30		-295.00		-332.1											
4/9/2016 0:00		-466.87																				
4/19/2016 0:00					-349.38					-297.21		-176.5										

Clearwater UWCD - Lower Trinity Monitor Wells

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State #	40-53-406	40-54-701	40-61-509	40-62-401	40-62-501	40-63-501	58-05-202	58-06-102	58-06-301	40-57-602	None	58-06-201	40-53-405	None	None	None	40-35-404	5806202	5806301	5817902	5829603	None
CUWCD #	N2-02-022G	M-13-006G	M-13-007G	N2-03-001G	M-13-005G	N2-02-034G	N2-02-024G	N2-02-001G	N2-04-010P	M-09-002P	N2-10-001P	N2-13-002P	M-13-039G	N2-14-005P	N2-14-004P	M-17-CTGCD_Carlile	M-18-TWDB-Gatesville	N2-14-005P	N2-04-010P	M-5817902	M-5829603	M-17-CTGCD_Carlile
Well Name	Moffat WSC #1	Cearley-City of Temple #2	Pea Ridge-City of Temple #3	Cen. TX Vet. Hospital	Acres-City of Temple #1	East Bell WSC #1	Armstrong WSC #1	Bell Co. WCID #2	East Bell WSC #2	Copperas Cove - Lower	Armstrong WSC #2	Jack Hilliard Dozer and Materials	CUWCD-Tanglewood Monitor Well	CTWSC System Split Well	CTWSC Doc Curb	Carlile	0	CTWSC System Split Well	East Bell WSC #2	Westwood Boys Ranch	City of Taylor #3	Carlile
Highest	-329.70	-259.00	-31.00	-71.60	-136.13	-217.45	-245.80	-36.00	-268.00	-290.13	-305.80	-173.40	-268.60	-179.11	-452.84	-370.70	-477.64	-488.40	-293.99	-384.20	-207.94	-353.59
Lowest	-583.70	-485.78	-285.25	-421.09	-366.03	-289.06	-265.50	-274.52	-378.00	-299.79	-373.10	-193.89	-478.91	-212.42	-485.03	-372.20	-543.86	-570.80	-301.88	-384.20	-211.57	-354.18
4/19/2016 12:00																	-507.52					
5/2/2016 0:00	-472.40																					
5/11/2016 0:00													-445.4									
6/1/2016 12:00																	-505.35					
7/1/2016 0:00	-485.50																					
8/1/2016 0:00	-484.00																					
8/2/2016 0:00						-272.00			-290.00													
8/30/2016 0:00	-476.80				-351.60	-265.00	-252.80		-292.00	-297.10	-334.1	-176.7	-451									
8/30/2016 12:00																	-515.93					
8/31/2016 0:00																-371.39						
9/13/2016 0:00			-239.50																			
9/30/2016 0:00	-485.10																					
10/3/2016 0:00						-268.00			-290.00	-297.14												
10/5/2016 0:00		-471.54			-352.23		-251.70				-334.5											
10/6/2016 0:00																-371.17						
10/6/2016 12:00																	-515.12					
10/17/2016 0:00								-262.50														
10/19/2016 0:00					-353.20					-297.65												
11/1/2016 0:00	-477.30					-268.00			-270.00							-371.69						
11/1/2016 12:00																	-515.11					
11/2/2016 0:00							-254.10				-335.5		-450									
11/21/2016 0:00													-455.9									
12/1/2016 0:00	-476.30	-472.58			-352.85	-268.00	-252.90		-290.00	-297.58	-305.8					-371.46						
12/1/2016 12:00																	-514					
12/6/2016 0:00		-472.68	-250.00		-352.84					-298.17												
1/3/2017 0:00	-475.60					-262.00			-290.00													
1/5/2017 0:00		-472.30	-249.90		-353.20		-254.60			-298.30	-356.3					-371.12						
1/5/2017 12:00																	-513.32					
1/6/2017 0:00												-183.79										
2/1/2017 0:00	-476.30					-262.00	-254.60		-290.00		-336.2											
2/2/2017 0:00								-225.50														
2/6/2017 0:00		-472.18	-249.99		-353.35					-297.72						-371.03						
2/6/2017 12:00																	-512.78					
3/1/2017 0:00						-251.00			-292.00													
3/5/2017 0:00					-353.20					-297.65						-371.13						
3/5/2017 12:00																	-512.95					
3/6/2017 0:00		-471.30	-249.90																			
3/7/2017 0:00							-254.00				-336.5											
3/30/2017 0:00		-472.20	-249.50		-353.20					-297.60												
3/31/2017 0:00																-370.7						
3/31/2017 12:00																	-512.64					
4/3/2017 0:00	-476.80					-253.00			-294.00				-453.9									
4/4/2017 0:00							-253.70				-335											
4/5/2017 0:00												-184.2										
4/24/2017 0:00					-353.31																	
5/1/2017 0:00	-477.30					-267.00			-294.00													
5/4/2017 0:00							-252.40				-335											
5/8/2017 0:00		-471.93	-249.84							-292.70						-371.04						
5/8/2017 12:00																	-514.67					
6/1/2017 0:00						-269.00			-295.00													
6/2/2017 0:00							-254.00				-335.7											
6/4/2017 0:00					-353.90					-297.28						-371.41						
6/4/2017 12:00																	-515.82					
6/5/2017 0:00	-480.70	-473.45	-250.00																			
6/30/2017 0:00								-186.20														
7/5/2017 0:00	-478.00					-268.00			-295.00													
7/6/2017 0:00		-473.83	-250.63		-354.40							-185.1	-451.2			-371.28						
7/6/2017 12:00																	-516.31					
7/7/2017 0:00							-254.70			-297.35	-336											
8/1/2017 0:00	-478.60					-270.00			-295.00													
8/3/2017 0:00							-255.00				-335.5											
8/4/2017 0:00															-453.9							
8/9/2017 0:00		-474.52	-251.31		-355.22					-297.20						-371.28						
8/9/2017 12:00																	-525.8					
8/25/2017 0:00				-404.70																		
9/1/2017 0:00	-482.20					-285.00			-294.00													
9/4/2017 0:00							-253.20				-336.7											
9/5/2017 0:00		-474.84	-251.74							-296.91						-371.5						
9/5/2017 12:00																	-525.8					
10/2/2017 0:00	-484.40					-283.00			-295.00	-297.80						-371.3						
10/2/2017 12:00																	-526.6					
10/3/2017 0:00							-256.60	-193.17			-337.3	-183.6										
10/4/2017 0:00				-405.30									-451.6									
11/1/2017 0:00	-477.90																					
11/2/2017 0:00							-257.20				-337.9			-183.4	-455							
11/3/2017 0:00						-283.00			-297.00													
11/6/2017 0:00		-475.80			-356.97					-297.87		-185.29										
11/6/2017 12:00																	-524.16					
11/6/2017 14:19																-371.4						
12/1/2017 0:00	-484.00					-220.00			-297.00													
12/4/2017 0:00		-476.26			-357.15					-297.94		-186.29		-183.29	-455.4							
12/4/2017 14:16																-371.2						
12/5/2017 0:00							-256.77				-338.3											
12/27/2017 0:00										-297.80		-186.95										
12/27/2017 12:00																	-522.91					
12/27/2017 14:16																-371.3						
12/29/2017 0:00		-476.82	-253.86		-357.33								-456.2	-183.75	-455.85							
1/2/2018 0:00	-483.90					-220.00			-297.00													
1/4/2018 0:00							-257.80				-357.7											
1/8/2018 0:00				-406.70																		
1/31/2018 12:00						-217.45			-294.41													
2/1/2018 13:50							-257.80				-338.4											
2/5/2018 0:00																-371.3						
2/5/2018 9:57		-476.98																				
2/5/2018 10:00			-253.68																			
2/5/2018 10:02					-357.54																	
2/5/2018 10:12										-298.02												
2/5/2018 12:00																	-522.72					
2/28/2018 12:00						-217.45			-296.72													
3/1/2018 14:00	-484.50																					
3/2/2018 12:20							-257.60															
3/2/2018 12:30											-338.2											
3/5/2018 0:00																-371						

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CUWCD #	N2-02-022G	M-13-006G	M-13-007G	N2-03-001G	M-13-005G	N2-02-034G	N2-02-024G	N2-02-001G	N2-04-010P	M-09-002P	N2-10-001P	N2-13-002P	M-13-039G	N2-14-005P	N2-14-004P	M-17-CTGCD_Carlile	M-18-TWDB-Gatesville	N2-14-005P	N2-04-010P	M-5817902	M-5829603	M-17-CTGCD_Carlile
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3/5/2018 12:00		-477.14	-253.65		-357.77					-297.72												
3/6/2018 15:48												-186.7										
3/19/2018 9:45								-186.24														
3/29/2018 10:03																						
3/29/2018 12:00										-297.72												
3/30/2018 12:00		-477.16	-254.39		-357.98																	
3/30/2018 14:00												-187.29										
3/30/2018 15:40													-468.5									
4/3/2018 8:00	-494.80																					
4/4/2018 8:58							-256.60															
4/4/2018 13:22								-191.36														
4/4/2018 13:55														-180								
4/4/2018 14:40															-456.75							
4/24/2018 8:17											-334.8											
4/24/2018 9:05							-254.80															
4/24/2018 11:01						-219.76																
4/24/2018 11:41									-296.72													
4/24/2018 13:25				-408.80																		
4/24/2018 13:52								-274.52														
4/26/2018 10:05															-456.45							
4/27/2018 8:57														-180.29								
4/30/2018 12:00						-219.76			-299.03													
5/1/2018 12:40	-487.30																					
5/1/2018 12:41																						
5/7/2018 0:00																-371.9						
5/7/2018 12:00		-477.82	-254.96		-359.03					-297.43												
5/31/2018 9:03						-217.45																
5/31/2018 12:00						-219.76			-303.65													
6/1/2018 9:50															-457.1							
6/1/2018 9:55							-261.60															
6/1/2018 10:05											-339.9											
6/1/2018 11:20				-410.60																		
6/1/2018 11:44									-303.65													
6/3/2018 19:00										-297.57												
6/3/2018 20:00					-360.85																	
6/4/2018 0:00																-372.2						
6/4/2018 1:00			-254.66																			
6/4/2018 2:00		-479.43																				
6/4/2018 8:10	-495.50																					
6/4/2018 8:17																						
6/4/2018 8:50														-184.84								
6/21/2018 12:00																	-528.55					
6/29/2018 12:00						-245.17			-296.72													
7/3/2018 9:17							-261.30															
7/3/2018 9:18											-342.2											
7/5/2018 0:00			-255.80													-371.8						
7/5/2018 11:04															-458.9							
7/5/2018 12:00					-361.65					-297.28												
7/5/2018 13:05												-187.89										
7/5/2018 13:30				-412.50																		
7/5/2018 14:00													-468.61									
7/31/2018 12:00						-284.44			-296.72													
8/6/2018 0:00																-371.9						
8/6/2018 12:00										-297.43												
8/6/2018 14:52														-179.11								
8/6/2018 18:00																	-543.86					
8/7/2018 9:15							-262.60															
8/7/2018 9:16											-343											
8/13/2018 12:00		-481.89	-257.19		-363.13					-297.80												
8/31/2018 12:00						-286.75			-299.03													
9/3/2018 12:00		-483.00	-257.91		-363.60					-297.72							-539.51					
9/3/2018 14:52														-185.51								
9/4/2018 12:08	-493.50																					
9/10/2018 14:00														-185.45								
9/11/2018 9:11							-257.50															
9/11/2018 9:14											-353.3											
9/27/2018 9:42															-461.46							
9/27/2018 12:00		-482.72	-285.25																			
9/27/2018 13:55												-191.07										
9/27/2018 14:25				-414.30																		
9/27/2018 15:21													-469.29									
9/28/2018 12:00										-297.72							-531.08					
9/28/2018 13:20																						
10/2/2018 10:18														-185.51								
10/4/2018 9:08							-259.40															
10/4/2018 9:09											-343.3											
10/29/2018 11:23														-184.59								
10/29/2018 11:40												-191.41										
10/29/2018 13:41															-452.84							
10/31/2018 12:00						-286.75			-299.03													
11/5/2018 12:00			-258.82							-298.09							-527.84					
11/5/2018 15:00		-482.26																				
12/3/2018 12:00			-259.20		-362.84	-284.44			-296.72								-527.17					
12/3/2018 15:00		-482.10																				
12/4/2018 12:00										-297.94												
12/26/2018 12:00										-298.46							-526.69					
12/27/2018 12:00			-258.79																			
12/27/2018 13:15												-191.19										
12/27/2018 15:00		-482.08											-467.63									
12/31/2018 12:00						-289.06			-292.10													
12/31/2018 21:29														-180.47								
1/2/2019 0:00																		-498.5				
1/2/2019 8:00	-488.30																					
1/7/2019 15:53															-461.22							
1/8/2019 14:05							-261.10				-343											
2/1/2019 0:00																		-502.7				
2/1/2019 12:26															-463.23							
2/1/2019 12:29														-187.31								
2/4/2019 12:00			-258.76		-363.52					-298.31						-371.4	-525.85					
2/4/2019 14:30							-261.00				-347											
2/10/2019 12:00																					-211.57	
2/28/2019 0:00																		-488.4				
3/1/2019 12:00						-284.44			-296.72													

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3/1/2019 12:29														-189.27								
3/4/2019 12:00		-481.37	-259.21		-363.29					-298.46						-371.7	-524.53					
3/4/2019 13:26												-191.7										
3/5/2019 12:00																					-211.22	
3/6/2019 14:00							-262.00				-344.2											
3/26/2019 12:00										-298.09							-529.59		-293.99			
3/27/2019 2:00		-481.48																				
3/28/2019 11:38														-188.97	-463.4							
3/28/2019 12:00			-259.02		-363.47																	
3/28/2019 14:32												-191.97										
3/28/2019 16:25													-467.01									
4/1/2019 12:00						-289.06			-292.10							-371.4						
4/2/2019 0:00																		-497.29				
4/2/2019 10:58	-488.30																					
4/4/2019 12:49															-463.54							
4/4/2019 16:11														-186.46								
4/5/2019 12:00																					-210.24	
5/1/2019 10:39												-191.89										
5/1/2019 11:49															-463.55							
5/1/2019 12:00						-284.44			-296.72													
5/1/2019 12:11														-187.87								
5/2/2019 0:00																		-540.3				
5/2/2019 10:23											-343											
5/2/2019 10:24							-262.90															
5/2/2019 10:57	-522.60																					
5/5/2019 12:00																					-210.35	
5/6/2019 4:00																	-523.79					
5/6/2019 7:00										-298.90												
5/6/2019 8:00					-362.76																	
5/6/2019 12:00		-480.89	-258.81													-370.7						
6/1/2019 11:55															-471.05							
6/1/2019 12:24														-190.48								
6/3/2019 0:00																		-504				
6/3/2019 10:56	-489.30																					
6/3/2019 12:00		-481.25	-258.99		-363.09					-298.24						-370.9	-524.25					
6/5/2019 11:15												-192.32										
6/5/2019 12:00																					-210.01	
6/7/2019 12:14							-262.60															
6/7/2019 12:15											-373.1											
6/26/2019 12:00										-298.31							-524.88					
6/27/2019 9:38													-468.62									
6/27/2019 10:28												-192.22										
6/27/2019 12:00		-481.34	-259.46		-363.04																	
7/1/2019 10:45															-464.25							
7/1/2019 12:00																-371						
7/1/2019 12:15														-190.95								
7/1/2019 13:56	-492.09																					
7/1/2019 13:57																		-504.59				
7/5/2019 12:00																					-209.64	
7/5/2019 14:18							-262.50															
7/5/2019 14:19											-353											
8/2/2019 9:14	-583.70																					
8/2/2019 9:15																		-541.6				
8/5/2019 9:30							-262.20															
8/5/2019 9:31											-344.3											
8/5/2019 12:00		-483.12	-260.34		-364.04					-298.39						-371.5	-534.19		-296.31		-209.18	
8/26/2019 10:30																						-353.59
9/2/2019 12:00						-286.75			-299.03							-371.8						
9/3/2019 10:55	-501.50																					
9/3/2019 10:59																		-534.19				
9/3/2019 12:00			-260.80		-364.84					-298.46							-529.56		-298.72			
9/3/2019 13:57														-201.77								
9/3/2019 14:10															-465.8							
9/3/2019 15:00		-484.88																				
9/5/2019 12:00																					-209.04	
9/6/2019 10:45							-264.40															
9/6/2019 10:47											-357.1											
9/26/2019 9:40				-411.50																		
9/26/2019 10:14													-478.91									
9/26/2019 12:00			-261.82		-364.66																	
9/26/2019 13:35												-193.89										
9/27/2019 12:00										-298.83							-533.14		-300.66			
9/27/2019 13:47																						-354.18
10/1/2019 10:54	-502.30																					
10/1/2019 11:00																		-530.8				
10/1/2019 12:00						-284.44			-317.51													
10/3/2019 13:57														-212.42								
10/3/2019 18:10															-485.03							
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10/7/2019 10:44							-264.90															
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11/1/2019 12:00						-286.75			-299.03													
11/4/2019 10:44							-265.50															
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11/4/2019 10:54	-496.09																					
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11/4/2019 12:00			-262.89		-365.88					-299.27						-372	-531.84		-301.88			
11/4/2019 14:05														-190.85								
11/4/2019 14:25												-193.82										
11/5/2019 12:00																					-209.15	
12/1/2019 12:00			-262.78																			
12/2/2019 12:00					-365.79	-289.06			-301.34	-299.13							-533.8		-301.5			
12/2/2019 15:00		-485.68																				
12/4/2019 10:43							-262.90															
12/4/2019 10:48											-346.4											
12/4/2019 10:52	-496.70																					
12/4/2019 11:01																		-512.4				
12/26/2019 12:00										-299.79							-533.16		-301.43			
12/30/2019 10:42													-476.93									
12/30/2019 11:33				-421.09																		
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12/30/2019 12:02												-193.85										
12/30/2019 15:00		-485.78																				
Since Last	-0.61	-0.10	0.08	-9.59	-0.24	-2.31	2.60	-83.16	-2.31	-0.66	5.50	-0.03	1.98	21.57	-19.23	0.10	0.64	58.40	0.07		-1.21	-0.59
Historical	-164.00	-226.78	-231.70	-348.09	-229.90	-59.06	-15.00	-224.52	-33.34	-8.63	-16.57	-20.45	-208.33	-7.45	-31.03	-0.61	-53.11	-13.90	-7.44	0.00	2.42	-0.59

E-line Measurement
Sonic Measurement
TWDB Measurement
Air line Measurement
No Reading Available

The desired future conditions established by Clearwater Underground Water Conservation District for the Lower Trinity is no more than 319 feet of drawdown after 50 years.

The average drawdown goal per year is -6.38 feet.

Minimum Number of Measurements: 3

Average Drawdown	**-6.51 ft/yr**
Drawdown of Water Level	
Increase of Water Level	

Appendix N

19th Annual Bell County Water Symposium
"Collaborative Discussion and Planning Water Needs for the Future"

November 6, 2019
8:00 - 4:00 p.m.
Location: Texas A&M University - Central Texas, 1001 Leadership Place, Killeen

Agenda at a Glance

8:00 a.m. **Registration**

8:30 a.m. **Welcome, Introduction & Theme of the Day**
Honorable David Blackburn, Bell County Judge
Leland Gersbach, Board President, Clearwater UWCD

8:45 a.m. **State of the District: Successes, Concerns and Actions**
Dirk Aaron, General Manager, Clearwater UWCD

9:00 a.m. **Whiskey's for Drinkin', Water's for Fightin':**
The Tumultuous History and Collaborative Future of Water Management Texas
Dr. Robert Mace, Interim Executive Director & Chief Water Policy Officer, Texas State University

9:45 a.m. **Texas Water Development Board Update: Science, Infrastructure & Support**
John Dupnik, Deputy Executive Administrator, Office of Water Science and Conservation, TWDB

10:30 a.m. **Morning Break**

10:45 **Bell County Challenges and Prospects for the Future**
Honorable David Blackburn, Bell County Judge

11:15 a.m. **Bell County Legislative Panel**
Moderator: Leah Martinsson, Executive Director, Texas Alliance of Groundwater Districts
Senator Dawn Buckingham, District 24
Representative Brad Buckley, District 54
Representative Hugh Shine, District 55

12:15 p.m. - Lunch **Keynote Address, Honorable Lyle Larson, State Representative District 122**
Chairman of the House Natural Resource Committee
Legislative Update and Special Recognitions

1:15 p.m. **Caring, Collaboration and Outreach for the Future - Hill Country Alliance**
Charlie Flatten, Water Policy Program Manager, Hill Country Alliance

2:00 p.m. **State of the Brazos River Basin and BRA**
Tiffany Malzahn, Environmental and Compliance Manager, Brazos River Authority

2:40 p.m. **Groundwater Science for Sound Policy**
Dr. Joe Yelderman, P.G., Professor of Geology, Baylor University

3:30 p.m. **GCD Case Study of Management and Policy**
Doug Shaw, General Manager, Upper Trinity GCD
Dirk Aaron, General Manager, Clearwater UWCD

- - - - - - - - - - - - Symposium Sponsors - - - - - - - - - - - -

Bell County Engineer's Office
Lloyd Gosselink Attorneys at Law
HALFF Associates
LRE Water, LLC
KPA Engineers
WSP USA
Clearwater Underground Water Conservation District
Texas A&M AgriLife Extension Service
Texas A&M University - Central Texas

For more information or to RSVP please contact Clearwater at 254-933-0120