# **2021 ANNUAL REPORT**





Clearwater UWCD Belton, Texas www.cuwcd.org



## 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 2021

The Annual Report for Fiscal Year 2021 (FY21) is presented to the Directors of the Clearwater Underground Water Conservation District (CUWCD or District) by May of the following Fiscal Year (May 2022). This report summarizes the activities and accomplishments of the District during FY21 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 2021 calendar year.



#### 2020-2021 Board of Directors

Jody WilliamsGary YoungLeland GersbachDavid ColeScott BrooksPrecinct 3Precinct 2Precinct 1At-LargePrecinct 4

## Contents

1.		Introduction	5
2.		Administrative Tasks	5
	A.	Contracts / Agreements	6
		1. Technical Consulting Services	6
		2. Legal Services	8
		3. Other Services	8
	Β.	Financial Items	9
		1. Budget and Tax Rate	9
		2. Financial Audit	9
	C.	Miscellaneous Policies / Issues	. 10
		1. District Rule Amendments	10
		2. Bylaws Revised	10
	D.	Board of Directors	. 10
		1. District Officers	. 10
		2. Meetings – FY21 (Oct 2020-Sept 2021)	. 11
	Ε.	Groundwater Management Plan	. 11
3.		Groundwater Management Plan Requirements	. 11
	A.	Providing the Most Efficient Use of Groundwater	. 12
		1. Well Registrations	. 12
		2. Permitted Well Applications	. 12
		3. Groundwater Database	. 13
		4. Annual Newsletter	. 18
	В.	Controlling and Preventing Waste of Groundwater	. 19
	C.	Addressing Conjunctive Surface Water Management Issues	. 19
	D. im	Addressing Natural Resource Issues Which Impact the Use and Availability of Groundwater, and which Apacted by the Use of Groundwater	n are 20
	Ε.	Addressing Drought Conditions	. 21
		1. Monitor Drought Conditions in the Edwards Aquifer	. 21
		2. Monitor Drought Conditions in the Trinity Aquifer	. 22
	F. B	Addressing Conservation, Recharge Enhancement, Rainwater Harvesting, Precipitation Enhancement, rush Control, Where Appropriate and Cost-Effective	and 23
		1. Conservation	. 23
		2. Rainwater Harvesting	. 23
		3. Brush Control	. 24
		4. Recharge Enhancement	. 24

5.	Summary	. 28
C	. Internet Site	28
В	. Bell County Water Symposium	27
A	. Abandoned Wells	26
4.	Miscellaneous Activities	. 26
	2. (b) Changes in Water Levels	26
	2. (a) Static Water Level Measurements	26
	1. Salado Springs	24
G	. Addressing in a Quantitative Manner the Desired Future Conditions of the Groundwater Resources	24

## 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 FY21; but reflects registration, permitting, and production figures for the 2021 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. Groundwater Management Plan requirements include the required tasks and activities identified in the District's Groundwater Management Plan. Miscellaneous activities include other activities and programs that have been an integral part of the District but are not required by the Groundwater Management Plan.

#### A. Contracts / Agreements

#### 1. Technical Consulting Services

#### LRE Water, LLC / WSP, USA / Advanced Groundwater Solutions, LLC

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 continued to provide technical representation of the district in GMA 8 relating to development of desired future conditions associated with required joint planning until April 2021 when the Board of Directors voted to begin a professional services contract with Advanced Groundwater Solutions, LLC. 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. This professional services contract continued in FY21.

#### 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 2021 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



Salado Creek Watershed from Bell County 3D Groundwater Model

depths prior to drilling. The tool also continues to assist the district in source aquifer determination of newly drilled wells.

#### Halff Associates, Inc

Halff Associates, Inc. created and continued 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. Halff Associates continued technical support and hosting of the District's online GIS website through the end of 2021. In September 2021, the District began working with LRE Water, LLC to develop a new data management system. This system went live in January 2022.

#### 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 2021, the system was continuously fine-tuned to ensure the 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 2021 streamflow 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 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 groundwaterlevel 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 Wellntel 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. This joint effort continued in FY20 and FY21.

In FY21, Baylor University continued to support aquifer tests of the Middle and Lower Trinity Aquifer system in order to participate in the delineation of potential management areas/zones within Bell County.

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

#### 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 FY21 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.

• Research and guidance on the future development of a Regional Habitat Conservation Plan with Bell and Coryell Counties and 10 public entities.

#### 3. Other Services

Clearwater UWCD Funding of Reimbursable Task Order on behalf of the former Bell County Adaptive Management Coalition

The Board entered into an interlocal agreement beginning in fiscal year 2012 that continued into fiscal year 2021. CUWCD, the Bell County Commissioners Court, Village of Salado, Salado Water Supply Corporation, Temple Area Builders Association and Billie Hanks, Jr. have collectively contributed \$639,210.60 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 – FY21 are \$615,903.07 leaving a balance of \$23,307.53 to fund the FY22 studies. Funding has continued since 2015 by reimbursable task order to fund Pete Diaz's work on specie assessment. The District defends the position that regulating mechanisms are in place (by CUWCD) on spring flow to protect the specie.

#### Ludwick, Montgomery & Stapp, 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. Ludwick, Montgomery & Stapp, P.C., Certified Public Accountants located in Temple, 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 FY21 was \$0.003344/\$100 valuation. The Board voted to lower the tax rate for the sixth 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 2020 to develop an operating budget for the upcoming fiscal year (FY21) and to set the corresponding ad valorem tax rate. The Board voted to lower the tax rate for FY21 to \$0.003344/\$100 valuation.



The original budget for FY21 was \$795,203.00, actual income collected was \$750,439.49. The original funds from the FY21 Reserve Funds were \$35,000. The adjusted income for FY21 was \$785,439.49. The total expenditures for FY21 were \$693,746.89. The Board prescribed closing the year with \$56,692.60 being returned to the Reserve Fund.



The approved budget for FY21, 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. Ludwick, Montgomery & Stapp, P.C., Certified Public Accountant located in Temple, Texas provided the 2021 annual financial audit for the District.

The audit began immediately at the closing of FY21 on September 30, 2021, and they concluded their audit and submitted their findings to the District in February 2022.

See Appendix B for FY21 Financial Audit. Online: <u>http://www.cuwcd.org/public-records/audits/</u>

#### C. Miscellaneous Policies / Issues

#### 1. District Rule Amendments

The Board of Directors last amended the District Rules in March 2016. The District has not addressed rules in preceding years at this time, but does annually review the current rules for potential changes should legislative mandates occur and/or until scientific evidence validates a need for such changes in management, policy and application.

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: <a href="http://www.cuwcd.org/district-overview/bylaws/">http://www.cuwcd.org/district-overview/bylaws/</a>

#### 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 2021 Officers are identified below, along with the office they held and precinct they represent. The map to the right is a map of the Bell County Commissioner Precincts which also serves as the precinct boundaries for the District.

Commission Precinct #4

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

Commissione Precinct #3

Commissioner Precinct #1

ommissione Precinct #2

#### 2. Meetings - FY21 (Oct 2020-Sept 2021)

The Board of Directors held 12 Board meetings in FY21. 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 the current status of the Edwards (BFZ) Aquifer and the Trinity 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 <a href="http://www.cuwcd.org/public-records/">http://www.cuwcd.org/public-records/</a>

#### E. Groundwater Management Plan

Texas Water Code, Chapter 36.1071--36.1073, states the Groundwater Management Plan (GMP) must be reviewed and readopted every 5 years by all GCDs in Texas. The plan is then subject to approval by the Texas Water Development Board (TWDB). Clearwater's Initial Groundwater Management Plan was adopted by the District Board of Directors on October 24, 2000 and was formally certified by TWDB on February 21, 2001.

Revisions are required every 5-years, even if simply updated with new DFC's. During each revision, the proposed GMP must go through staff evaluation and a minimum of one preliminary review by the Texas Water Development Board (TWDB). The previous GMP was amended to include the DFC/MAG revisions and was formally readopted by the Board of Directors on January 9, 2019, after the prescribed public hearing on the revised version and was approved by TWDB on March 12, 2019.

The District was still required to review and update the current plan in 2020 and have it readopted by TWDB prior to January 13, 2021. The District completed a full review and formally adopted the revised plan on November 11, 2020, and received final approval from TWDB on December 30, 2020.

The District Groundwater Management Plan can be found on CUWCD's website at: <a href="http://www.cuwcd.org/district-overview/management-plan/">http://www.cuwcd.org/district-overview/management-plan/</a>

## 4. Groundwater Management Plan Requirements

The District Groundwater 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, CUWCD will require the registration of all wells within the District's jurisdiction.

#### **Objective Satisfied**

During the calendar year 2021, 99 wells were registered. The tables below summarize well registration and permitting activity from January 1, 2021, through December 31, 2021. Since 2018, District Staff has been conducting a robust search of all TWDB and TCEQ databases to identify wells that have not been properly registered. The District's field technician follows up with landowners to properly get the unregistered wells registered in the District's database. During the calendar year 2021, 18 existing wells (blue columns) were registered and 81 new wells (orange columns) were registered.



Appendix C for Master Registration Table

#### 2. Permitted Well Applications

Objective: Each year, CUWCD 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 99 wells registered in 2021, only 12 of those were classified as non-exempt. The Table below summarizes the non-exempt wells or permits that were approved during 2021 and the corresponding permits that were issued where applicable.

Well #	Land Owner	Ac-Ft / Year	Aquifer	Use	Permit Type
N2-20-007G	Victory Rock LLC	2.0	Middle Trinity	Industrial	Operating
N1-21-001P	Kelly Carter	0.87	Alluvial	Domestic	Drilling & Operating

#### Non-Exempt Permitted Well Registrations for 2021 Calendar Year

N2-21-001P	Victory Rock LLC	30.0	Lower Trinity	Industrial	Drilling & Operating
N2-21-002G	R & A Hauling	1.34	Edwards BFZ	Domestic	Operating
N2-21-003P	David & Denea Reaves	0.54	Lower Trinity	Domestic	Drilling & Operating
N2-21-004P	Hines Texas LLC (replacement well)	4.14	Lower Trinity	Domestic	Drilling & Operating
N2-21-005P	Nathan & Danielle McNeal	0.40	Lower Trinity	Domestic	Drilling & Operating
N2-21-006P	Salado RV Park	2.98	Edwards BFZ	Domestic	Operating
N2-21-007P	Belton Partners LLC	2.5	Edwards BFZ	Public Supply	Drilling & Operating

#### 3. Groundwater Database

Objective: Each year, CUWCD 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 worked 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.

In August of 2021, the Board of Directors voted to move the online GIS system to LRE Water, LLC. Since September 2021, staff has been diligently working with the database programmers of LRE Water, LLC to develop the new data management system.

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: <u>http://www.cuwcd.org/</u>



#### **Non-exempt Well Production**

The District continued collecting data from non-exempt wells during 2021. 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 2021, 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.

	Permitted Ac-Ft	# Permitted Wells	Actual Use Ac-Ft	# Active Permitted Wells	% Usage
Edwards (BFZ)	2,515.61	60	1,751.57	47	69.62%
Trinity (total)	4,744.34	73	1,705.60	54	35.95%
Glen Rose	134.04	7	18.70	6	13.95%
Hensell	471.28	34	67.37	25	14.30%
Hosston	4,139.02	32	1,619.53	23	39.13%
Other Aquifers	589.34	25	138.91	16	23.57%
Total	7,849.29	158	3,596.08	117	45.81%

#### 2021 Permitted Wells

The following chart shows 2021 production by month and aquifer. Production was at its highest level during the month of September with a monthly withdrawal of 475.21 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 2021 (117 wells) is shown compared to production in years 2003 through 2021. Overall production in 2021 was 3,596.08 ac-ft which is slightly lower than the total production in 2020. The Edwards (BFZ) had a total production for 2021 of 1,751.57 ac-ft, total Trinity aquifer production was 1,705.60 ac-ft, and other formations produced 138.91 ac-ft of water.



See Appendix D for 2021 Well Production Report

#### **Groundwater Transport**

During 2021, six entities in Bell County transported groundwater outside the District. A total transport of 76.83 ac-ft. occurred from the Edwards BFZ aquifer and 87.21 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 \$1,336.29 for 2021.

Entity	Aquifer	County	Ac-Ft	Gallons	Fee
Bell-Milam-Falls WSC	Lower Trinity	Falls, Milam, Williamson	33.40	10,883,037	\$272.08
Central Texas WSC	Lower Trinity	Falls, Milam	50.24 16,370,694		\$409.27
East Bell WSC	Lower Trinity	Falls	0.61	197,611	\$4.94
Jarrell-Schwertner WSC	Edwards (BFZ)	Williamson	76.83	25,036,579	\$625.91
Little Elm Valley WSC	Lower Trinity	Falls	2.38	775,808	\$19.40
O&B WSC	Lower Trinity	Falls	0.58	187,726	\$4.69
		TOTAL	164.04	53,451,455	\$1,336.29

#### 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

Entity	2021 Loss (% of water)	2020 Loss (% of water)	2019 Loss (% of water)	2018 Loss (% of water)	2017 Loss (% of water)	2016 Loss (% of water)
Armstrong WSC	21.00	19.00	19.00	18.00	11.12	15.74
Bell Co. WCID #2	12.00	15.00	14.00	11.10	9.20	8.34
Bell Co. WCID #5	3.00	2.81	24.71	16.72	20.97	10.64
Bell-Milam-Falls WSC	44.00	31.28	41.92	36.60	29.03	32.06
Central Texas WSC	17.00	8.00	9.00	8.00	8.30	9.25
City of Troy	21.98	18.96	21.70	34.75	17.20	9.94
East Bell WSC	14.85	10.74	14.42	16.21	12.54	8.23
Jarrell-Schwertner WSC	38.00	41.00	50.00	48.04	49.33	50.72
Little Elm Valley WSC	26.00	17.54	20.75	23.04	22.16	25.30
Moffat WSC	16.00	10.00	26.00	26.70	19.68	10.43
Oenaville/Bellfalls WSC	7.04	5.54	6.42	7.39	8.99	15.29
Pendleton WSC	18.12	21.51	22.03	24.43	20.30	23.94
Salado WSC	10.20	9.88	8.30	9.76	7.60	8.80

#### Bell County Water Loss 2016-2021

\* 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, 2021. 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.

	Reserved	Estimated Use*	# Wells				
Edwards (BFZ)	825 ac-ft	356 ac-ft	833				
Trinity	1,419 ac-ft	793 ac-ft	1,594				
Other Aquifers	N/A	833 ac-ft	1,586				
Total	2,244 ac-ft	1,981 ac-ft	4,013				
* Domestic 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)							

See Appendix E for 2021 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)	1,751.57	69.62	356	43.15	2,107.57	32.58
Trinity	1,705.60	35.95	793	55.88	2,498.60	26.97
Other Aquifers	138.91	23.57	833	N/A	971.91	N/A
Total	3,596.08	45.81	1,981	51.20	5,578.08	29.27

The previous chart shows that overall, exempt wells account for approximately 51.20% of all the groundwater produced in Bell County. In the Trinity, 55.88% of production is attributed to exempt wells and, in the Edwards BFZ, exempt wells account for 43.15% of groundwater production.

Overall, production from the Edwards BFZ aquifer accounts for 32.58% of total groundwater used in Bell County and the Trinity aquifer accounts for 26.97% of total groundwater used in Bell County.

Aquifer	MAG Modeled *	Reserved for Exempt	Managed	HEU Permit	Operating Permit	Remaining MAG
Edwards (BFZ)	6,469	825	5,644	2,209.70	305.91	3,128.39
Trinity	9,266	1,419	7,847	1,502.60	3,241.74	3,102.66
Paluxy	0			0	0	0
Glen Rose (Upper)	974	693	281	61.90	72.14	146.96
Hensell (Middle)	1,099	548	551	259.30	211.98	79.72
Hosston (Lower)	7,193	178	7,015	1,181.40	2,957.62	2,875.98

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

\* 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 2021 Edwards and Trinity Aquifer Status Reports

#### 4. Annual Newsletter

Objective: Each year, CUWCD will disseminate educational information on groundwater through publication of a District newsletter, quarterly web news and website.

#### **Objective Satisfied**

Annually, the District publishes a newsletter and mails it to registered well owners in Bell County. In 2021 the total number of newsletters printed were 3,750 with 3,666 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. The District also sent out 2 quarterly reports through Mail Chimp.

See Appendix G for Annual Newsletter and quarterly web news. Online: <u>http://www.cuwcd.org/district-overview/district-newsletter/</u>

#### **Outreach and Education**

Objective: Each year, CUWCD will disseminate educational information on controlling and preventing the waste of groundwater focusing on water quality protection through at least one classroom or public presentations to civic organizations and invited opportunities to speak.

#### **Objective Satisfied**

District staff is available to speak to any group within our geographical boundaries. In 2021, District staff managed to reach over 560 adults and children in Bell County directly through presentations and making contact at event booths even though COVID-19 restrictions were still in place and limited the number of people allowed at gatherings. We often give powerpoint 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, CUWCD 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 FY21, District General Manager Dirk Aaron attended the scheduled meetings listed below. In 2019, Dirk Aaron was 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.



October 28, 2020 March 3, 2021 Attended Attended June 23, 2021 September 29, 2021

Attended 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.



October 27, 2020 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, CUWCD will monitor water quality within the District by obtaining water samples from all newly constructed wells and testing the water quality of a minimum 90% of newly constructed 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 FY21, the staff conducted screening on 101 groundwater samples. 14 samples tested were from the Edwards (BFZ) aquifer, 11 samples from the Upper Trinity, 54 samples from the Middle Trinity, 15 samples from the Lower Trinity, and 4 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 FY21, no samples were sent out for certified testing.

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

Objective: Each quarter of the year, CUWCD will monitor the water quality and spring-flow of the Salado Springs Complex and the Robertson springs of Salado in accordance with the necessary agreements under the Endanger Species Act (ESA) and a proposed, soon to be negotiated 4(d)rule with United States Fish and Wildlife Service (USFWS) and such, per Chapter 36.108 GMA8 Joint Planning, to manage to the Edwards BFZ Aquifer DFC.

#### **Objective Satisfied**

Quarterly water quality assessments for nitrate, nitrite, and dissolved oxygen of both Salado Spring Complex and groundwater flow from all seven of the downtown springs collectively known as the Salado Spring Complex were completed in 2021.

#### A summary of the Salado Springs Complex screening results is shown in Appendix J.

Objective: Each year, CUWCD, in accordance with the agreed-upon five-year reimbursable-task-order with Texas Fish and Wildlife Conservation Office (TXFWCO), will fund and support the efforts of the assigned research biologist, to assess the status of the Threatened Salado Salamander by systematically monitoring under the federal permit TE676811-9 and state permit SPR-0111-03.

#### **Objective Satisfied**

A summary of the formal findings of the assigned research biologist is in appendix K and on the district website at <u>https://cuwcd.org/salado-salamander/</u>

TXFWCO's report for FY21 is shown in Appendix K.

#### E. Addressing Drought Conditions

The District's Groundwater 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 month, CUWCD 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

#### EDWARDS BFZ AQUIFER DROUGHT STATUS



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:* <u>http://www.cuwcd.org/regulatory-program/drought-management/edwards-drought-management-plan/</u>

The chart on the next page shows the declared stages during the fiscal year.

Date	Declared Drought Stage	Salado Creek Acre ft/Month	Salado Creek CFS	PDI Total	PDI % Total
10/7/2020	No Drought	1,173.42	19.72	31.45	95.31
11/9/2020	No Drought	600.99	10.10	28.54	86.49
12/4/2020	No Drought	615.15	10.34	28.85	87.42
1/1/2021	No Drought	2,304.00	38.72	31.05	94.09
3/1/2021	No Drought	1,171.04	19.68	28.49	86.33
4/4/2021	Stage 2 Drought	666.45	11.20	25.51	77.30
4/18/2021	Stage 1 Drought	1,322.18	22.22	24.26	73.50
5/4/2021	Stage 1 Drought	4,153.59	69.80	25.81	78.21
6/3/2021	No Drought	51,901.95	872.24	28.32	85.81
7/8/2021	No Drought	5,199.47	87.38	33.20	100.61
8/5/2021	No Drought	4,280.97	71.94	36.92	111.88
9/6/2021	No Drought	2,073.13	34.84	33.62	101.86

#### 2. Monitor Drought Conditions in the Trinity Aquifer

Objective: Each month, CUWCD 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:* <u>http://www.cuwcd.org/regulatory-program/drought-management/edwards-drought-management-plan/</u>

Below are the declared stages during the fiscal year.

Date	Declared Drought Stage	PDI Total	PDI % Total
10/7/2020	No Drought	33.35	101.05
11/9/2020	No Drought	30.64	92.85
12/4/2020	No Drought	30.91	93.65

#### TRINITY AQUIFER DROUGHT STATUS



1/1/2021	No Drought	33.36	101.08
3/1/2021	No Drought	31.28	94.77
4/4/2021	No Drought	27.55	83.48
4/18/2021	No Drought	26.39	79.97
5/4/2021	No Drought	27.46	83.21
6/3/2021	No Drought	31.14	94.36
7/8/2021	No Drought	34.55	104.69
8/5/2021	No Drought	37.58	113.87
9/7/2021	No Drought	32.48	98.43

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

#### 1. Conservation

Objective: Each year, CUWCD will promote conservation by conducting and hosting educational events with AgriLife Extension Service and Texas 4-H2O Ambassadors on water conservation and by distributing conservation brochures and literature to the public at a minimum of two educational events attended by district staff and directors.

#### **Objective Satisfied**

During 2021, the District exceeded this requirement even though COVID-19 restrictions were still in place. The District was able to reach over 560 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. The District also presented the same topics in the ongoing electronic quarterly newsletter and the annual newsletter.

See Appendix H for Education and Outreach Events.

#### 2. Rainwater Harvesting

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

#### **Objective Satisfied**

The District's Groundwater 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 L.

#### 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 Groundwater 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 M.

#### 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 Groundwater 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 N.

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

#### 1. Salado Springs

Objective: Each month, CUWCD will operate a gauge system on Salado Creek by contract with USGS Water Science Team in Austin Texas, to accurately record the estimates of the discharge from the

Edwards (BFZ) Aquifer at the Salado Springs Complex, Robertson, Big Boiling, Little Bubbly, Side Spring, Critchfield, Benedict and Anderson Springs.

#### **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: <a href="http://www.cuwcd.org/salado-springs/salado-creek-gauges/">http://www.cuwcd.org/salado-springs/salado-creek-gauges/</a>

Each month, CUWCD provides a summary of the monthly average discharge rate of Salado Springs and discusses the conservation measures implemented (if any are necessary) to avoid impairment of the Desired Future Conditions for the Edwards (BFZ) Aquifer established by GMA 8.

The image below is a screenshot of the spring flow data for the calendar year 2021.



Salado Creek – USGS 08104300

Gage height, feet

Discharge, cubic feet per second

#### 2. (a) Static Water Level Measurements

Objective: Each month, CUWCD will collect at least 15 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. The District also collects water level measurements from all newly constructed wells in Bell County and from all Wellntel participants.

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 2021, the District took water level measurements from 141 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 12 continuous monitor wells that are monitored by TWDB. The continuous water level measurements can be viewed on TWDB's website at: <a href="https://waterdatafortexas.org/groundwater">https://waterdatafortexas.org/groundwater</a>.

A copy of the measurements is included under Appendix O.

#### 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 2021) 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 Groundwater 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 2020.

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 2021 a total of 11 wells were plugged in Bell County.

#### B. Bell County Water Symposium

Clearwater sponsored its twentieth annual water symposium on November 17, 2021 at the Bell County Expo Center. Event partners included Bell County Engineer's Office, KPA Engineers, LRE Water LLC, Lloyd Gosselink Attorneys at Law, Capital Farm Credit, Allan R. Standen LLC, Natural Resource Solutions, LC, INTERA Inc, Michelle A. Sutherland Groundwater Resource Consulting, Advanced Groundwater Solutions LLC, and Texas A&M AgriLife Extension-Bell County.

Topics that were discussed:

- Status of Water in Texas Michael Irlbeck, Business Development Director, EPCOR USA Inc.
- Rural Land Trends and Impacts to Groundwater Dr. Roel Lopez, Director & Professor, Texas A&M Natural Resource Institute and Dr. Robert Mace, Executive Director & Chief Water Policy Officer, Texas State University
- Growth and Development Bell County: It has, It is & It will be Honorable David Blackburn, Bell County Judge
- State of Groundwater in Bell County Leland Gersbach, Board President, Clearwater UWCD and Dirk Aaron, General Manager, Clearwater UWCD
- Texas Runs on Water Brianna Fuller, Campaign Manager, Texas Water Foundation
- BRA Update on Surface Water Resources in Brazos Planning Region G Brad Brunett, Lower/Central Basin Region Manager, Brazos River Authority
- New Understanding of the Trinity Aquifer in Bell and Williamson Counties Panel Moderator: Cole Ruiz, Attorney, Lloyd Gosselink Rochelle & Townsend, P.C., Vince Clause, Hydrogeologist, Allan R. Standen LLC, Mike Keester, Hydrogeologist, LRE Water LLC, Dr. Joe Yelderman, P.G., Chair of Geosciences, Baylor University
- ASR, Is it a Viable Strategy in Bell County Dr. Neil Deeds, P.E., Professional Engineer, INTERA Inc. and Dr. Steve Young, P.E., P.G., Principal Geoscientist/Engineer, INTERA Inc.
- Status Update of the Salado Salamander's Critical Habitat Designation and Species Status Steve Manning, President, Natural Resources Solutions, LC and Madelyn Todd, Project Manager, Natural Resources Solutions, LC.

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

#### C. Internet Site

The District's website continues to grow on a monthly basis. The website 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:

- <u>Current Drought Status</u>
- Educational Resources
- Texas Drought Monitor
- Salado Creek Gauges
- District Rules
- Groundwater Management Plan

- Access to online GIS Maps
- Link to TWDB Groundwater Levels
- Link to TWDB Texas Reservoir Levels
- Public Records
- District Forms and Documents

The website can be viewed at <a href="http://www.cuwcd.org">http://www.cuwcd.org</a>

### 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 database 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 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, 2017, 2018, 2019, 2020 and 2021 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.



#### Clearwater Underground Water Conservation Adopted Budget FY2021

REVENUE	
Application Fee Income	30,000.00
Bell CAD Current Year Tax	736,203.00
Bell CAD Deliquent Tax	12,500.00
Interest Income	15,000.00
I ransport Hee Income	1,500.00
Total Income	795,203.00
Gross Profit	795,203.00
EXPENDITURES	
Administrative Expenses	
Audit	7,500.00
Conferences & Prof Development	4,000,00
Contingency Fund	26.00
Director Expenses	7,500.00
Director Fees	12,750.00
Dues & Memberships	2,850.00
Election Expense	500.00
GMA 8 Expenses	10,000.00
Meals	1,000.00
Mileage Reimbursements	5,000.00
I ravel & Hotel	4,500.00
Total Administrative Expenses	55,626.00
Salary Costs	
Administrative Assistant	49,124.00
Educational Coord/Support Tech	41,820.00
Manager	83,888.00
Part Time/Intern	2,640.00
Office Assistant/Field Tech	40,800.00
Health Insurance	41,274.00
Payroll Taxes & Work Comp	19,645.00
Retirement	9,704.00
Payroli Expenses	125.00
Freshbenies	432.00
Total 52000 · Salary Costs	289,452.00
Operating Expenses	
Bank Service Charges	50.00
Advertisement	3,500.00
Appraisal District	8,500.00
Clearwater Studies	205,860.00
Spring Flow Gage System	15,900.00
Computer Consulting	12,840.00
Computer Licenses/Virus Prictin	1,500.00
Computer Repairs and Supplies	1,500.00
Computer Software & Hardware	4,000.00
	6,000.00
Eucational Outreach/Marketing	19,500.00
	1,500.00
	76,500.00
Bormit Boviewe	3,000.00
Pertint Reviews	30,000.00
Printing	2,500.00
Reserve for Uncollected Taxes	2,500.00
Subscriptions	20,000.00
Mobile Classroom Evoense	2 000 00
Total Operating Expenses	00.000
54000 · Facility Costs	18 875 00
55000 · Utilities	10,075,00 9 200 00
Total Expanse	705 202 00
I Utal Expense	795,203.00

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For a detailed copy of the FY21 Budger, please contact CUWCD at 254-933-0120

#### RESOLUTION AND ORDER OF THE BOARD OF DIRECTORS OF THE CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT MEETING HELD AUGUST 31, 2020

THE STATE OF TEXAS	ş	
	§	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 31<sup>st</sup> day of August 2020, whereupon the roll was called of the members of the Board of Directors, to wit:

Leland Gersbach	President
David Cole	Vice President
C. Gary Young	Secretary
Scott A. Brooks	Director
Jody Williams	Director

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

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

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, 2020, through September 30, 2021, and determined what tax rate should be set to meet such budget requirements;

WHEREAS, the appraisal roll of the District for 2020 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 2020 shall be \$0.003272 per one hundred dollars (\$100) of assessed valuation. Be it known that this 2020 tax rate is less than last year's \$0.00357 per \$100 of assessed valuation, but this rate will increase total taxes in Clearwater by 0%, or \$0.00 on the average appraised value of a residence at \$175,008.

#### THIS TAX RATE WILL RAISE MORE TAXES FOR MAINTENANCE AND OPERATIONS THAN LAST YEAR'S TAX RATE. THIS TAX RATE WILL 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 \$0.003272 per \$100 valuation for 2020 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 31<sup>st</sup> day of August 2020.

**CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT** 

By:

Leiand Gersbach, Board President (or) David Cole, Board Vice President

ATTEST:

C. Gary Young, Board Secretary (or) Dirk Aaron, Assistant Secretary



## **CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT**

**Audited Financial Statements** 

For the Year Ended September 30, 2021

and Independent Auditors' Report

### TABLE OF CONTENTS

Financial Section	
Independent Auditors' Report	1
Management's Discussion and Analysis	
Basic Financial Statements:	
Government-wide and Fund Financial Statements Statement of Net Position and Governmental Fund Balance Sheet	8
Statement of Activities and Governmental Fund Revenues, Expenditures, and Changes in Fund Balance	9
Notes to the Financial Statements	10
Required Supplementary Information:	
Budgetary Comparison Schedule - General Fund	19
Texas Supplementary Information:	
TSI-1 - Services and Rates - not applicable	
TSI-2 - General Fund Expenditures	20
TSI-3 - Temporary Investments	21
TSI-4 - Taxes Levied and Receivable	22
TSI-5 - Long-Term Debt Service Requirements by Years - not applicable	
TSI-6 - Changes in Long-Term Bonded Debt- not applicable	
TSI-7 - Comparative Schedule of Revenues and Expenditures - General Fund - Five Years	23
TSI-8 - Board Members, Key Personnel, and Consultants	24
Compliance and Internal Control Section:	
Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with	
Schedule of Findings and Bognonges and Connection Action Di	25
Schedule of Princings and Responses and Corrective Action Plan	27
Schedule of Prior Year Findings and Corrective Action Plan	28


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#### **INDEPENDENT AUDITORS' REPORT**

To the Board of Directors Clearwater Underground Water Conservation District

#### **Report on the Financial Statements**

We have audited the accompanying financial statements of the governmental activities, each major fund, and the aggregate remaining fund information of Clearwater Underground Water Conservation District as of and for the year ended September 30, 2021, and the related notes to the financial statements, which collectively comprise Clearwater Underground Water Conservation District's basic financial statements as listed in the table of contents.

#### Management's Responsibility for the Financial Statements

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

#### Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing 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 from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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 basis for our audit opinions.

#### Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, each major fund, and the aggregate remaining fund information of Clearwater Underground Water Conservation District, as of September 30, 2021, and the respective changes in financial position thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

- 1 -

#### **Other Matters**

#### Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and budgetary comparison information on pages 3-7 and 19 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise Clearwater Underground Water Conservation District's basic financial statements. The introductory section and supplemental information are presented for purposes of additional analysis and are not a required part of the basic financial statements

The supplemental information section has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

The introductory section has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

#### Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 31, 2022, on our consideration of Clearwater Underground Water Conservation District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Clearwater Underground Water Conservation District's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Clearwater Underground Water Conservation District's internal control over financial reporting and compliance.

udurch, Montgen + Styp P

Temple, Texas January 31, 2022

In this section of the annual financial report, we, the managers of Clearwater Underground Water Conservation District (the District), discuss and analyze the District's financial performance. Please read it in conjunction with the independent auditors' report on page 1 and the District's basic financial statements, which begin on page 8.

#### FINANCIAL HIGHLIGHTS

- The District's net position increased by \$20,462 as a result of this year's operations.
- The ending net position was \$1,420,597.
- During the year, the District had expenses that were \$20,462 less than the \$749,221 generated in revenues.
- Total costs of all the District's programs were \$728,759.
- The resources available for appropriation were \$56,693 more than budgeted due to an over budgeting of compensation and benefits and other operating expenses offset by an over budgeting of revenues.

#### **OVERVIEW OF THE FINANCIAL STATEMENTS**

This annual report consists of three parts: (1) Management's Discussion and Analysis (this section), (2) government-wide and fund financial statements, and (3) notes to the financial statements. The government-wide and fund financial statements include the statement of net position and governmental fund balance sheet and the statement of activities and governmental fund revenues, expenditures, and changes in fund balance (on pages 8 and 9). The government-wide and fund financial statements are presented together because the District has only one fund. These provide information about the activities of the District as a whole. They reflect the flow of total economic resources in a manner similar to the financial reports of a business enterprise.

The notes to the financial statements, starting on page 10, provide narrative explanations or additional data needed for full disclosure in the government-wide statements and fund financial statements. This report also contains the budgetary comparison schedule as required supplementary information in addition to the government-wide and fund financial statements themselves.

#### **GOVERNMENT-WIDE FINANCIAL STATEMENTS**

The government-wide financial statements are designed to provide readers with a broad overview of the District's finances, in a manner similar to a private-sector business. The government-wide financial statements use the economic resources measurement and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred regardless of the timing of the related cash flow.

The statement of net position presents information on all of the District's position and liabilities, with the difference between the two reported as net position. The District's net position (the difference between assets and liabilities) provide one measure of the District's financial health or financial position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the District is improving or deteriorating. To fully assess the overall health of the District, however, you should consider nonfinancial factors as well. The analysis of the District's overall financial condition and operations begins on page 8.

## GOVERNMENT-WIDE FINANCIAL STATEMENTS (CONTINUED)

The statement of activities presents information showing how the District's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future periods.

These two statements report the District's net position and changes in them.

### FUND FINANCIAL STATEMENTS

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The District uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. The District has only one fund, namely the general fund.

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

The District maintains one general fund in the governmental fund balance sheet and the governmental fund statement of revenues, expenditures, and changes in fund balance.

Because the focus of the general fund is narrower than that of the government-wide financial statements, it is useful to compare the information presented in the general fund with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the government's near-term financial decisions. Both the general fund balance sheets and the general fund statement of revenues, expenditures, and changes in fund balance provide a reconciliation to facilitate this comparison between the general fund and governmental activities. The general fund financial statements are shown in conjunction with the government-wide financial statements on pages 8 and 9.

#### NOTES TO THE FINANCIAL STATEMENTS

The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements. The notes to the financial statements can be found on pages 10 through 18 of this report.

## **REQUIRED SUPPLEMENTARY INFORMATION**

The budgetary comparison schedule is presented for purposes of additional analysis as required by accounting principles generally accepted in the United States of America. The schedule can be found on page 19 of this report.

## **GOVERNMENT-WIDE FINANCIAL ANALYSIS**

The District implemented GASB 34 during the fiscal year ended September 30, 2004. The following analysis focuses on the Net Position (Table I) and Changes in Net Position (Table II) of the District's governmental fund activities.

#### GOVERNMENT-WIDE FINANCIAL ANALYSIS (CONTINUED)

Net position of the District's governmental activities increased from \$1,400,135 to \$1,420,597. Unrestricted net position - the part of net position that can be used to finance day-to-day operations without constraints established by debt covenants, enabling legislation, or other legal requirements was \$890,305 at September 30, 2021.

The District's total revenues increased by \$7,220. The cost of all governmental activities this year was \$728,759 compared to \$819,438. Therefore, revenues increased while expenses decreased.

	Net Position				
		Gov A	Governmental Activities 2021		vernmental activities 2020
Assets:					
Cash		\$	902,467	\$	829,822
Taxes receivabl	e		21,208		22,425
Capital assets -	net of depreciation		530,292		561,241
Total Assets			1,453,967		1,413,488
Liabilities:					
Current			33,370		13,353
Total Liabilities	3	<u></u>	33,370		13,353
Net Position					
Unrestricted			890,305		838,894
Net investment i	n capital assets		530,292		561,241
Total Net Positi	on		1,420,597	<u></u>	1,400,135

# Table I Clearwater Underground Water Conservation District

### GOVERNMENT-WIDE FINANCIAL ANALYSIS (CONTINUED)

# Table II Clearwater Underground Water Conservation District

Changes III I	vet i osition		
	Governmental Activities 2021	Governmental Activities 2020	
Revenues		······	
Property taxes	\$ 723,678	\$ 716,199	
Permits and other fees	24,736	13,865	
Interest income	807	11,937	
Total Revenues	749,221	742,001	
Expenses			
Operating expenses	728,759	819,438	
Total Expenses	728,759	819,438	
Increase (decrease) in net position	20,462	(77,437)	
Net position - beginning of the year	1,400,135	1,477,572	
Net position - end of the year	\$ 1,420,597	\$ 1,400,135	

## **Changes in Net Position**

#### FUND FINANCIAL ANALYSIS

The focus of the District's governmental fund is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the District's financing requirements. In particular, fund balance may serve as a useful measure of a government's net resources available for spending for program purposes at the end of the year.

As the District completed the current year, its governmental fund, which consists of one general fund, as presented in the governmental fund balance sheet on page 8 reported an ending fund balance of \$886,514, which is \$56,693 higher than last year's total of \$829,821. The District's major source of revenue is property taxes. The fund balance represents funds available for operations.

The District's general fund balance of \$886,514 reported on page 19 differs from the General Fund's budgetary fund balance of \$829,821 reported on the same schedule. This is principally due to expenses being under budget offset by revenues being over budgeted.

#### CAPITAL ASSETS

At the end of fiscal year 2021, the District had \$530,292 invested in building, land and equipment, net of accumulated depreciation. During the year ended September 30, 2021, there were no additions or disposals of capital assets.

#### DEBT

The District had no debt during the year or at year end.

#### ECONOMIC FACTORS AND NEXT YEAR'S BUDGET

The District's board considered many factors when setting the 2021 budget. One of the factors was the appraisal value of property. Additionally, the economy and population growth were considered.

#### CONTACTING THE DISTRICT'S FINANCIAL MANAGEMENT

This financial report is designed to provide our citizens and taxpayers with a general overview of the District's finances and to show the District's accountability for the funds it receives. If you have questions about this report or need additional financial information, contact the District's business office, Clearwater Underground Water Conservation District, 700 Kennedy Ct., P.O. Box 1989, Belton, TX 76513.

# Statement of Net Position and Governmental Fund Balance Sheet

September 30, 2021

	General Fund	Adjustments (Note 11)	Statement of Net Position
Assets			
Current Assets:			
Cash and cash equivalents	\$ 17,144	4 \$ -	\$ 17,144
Temporary investments	885,323	- 3	885,323
Taxes receivable, net of allowance of \$-0-	21,208		21,208
Total Current Assets	923,675	5 -	923,675
Noncurrent Assets:			
Capital assets not being depreciated			
Land	-	59,981	59,981
Capital assets being depreciated			.,
Building and equipment, net of			
accumulated depreciation	-	470,311	470,311
Total Capital Assets net		520 202	520 202
Total Capital Assets, net			530,292
Total Noncurrent Assets		530,292	530,292
Total Assets	<u>\$ 923,675</u>	530,292	1,453,967
Liabilities			
Accounts payable	\$ 15,953		15,953
Compensated absences		17,417	17,417
Total Liabilities	15,953	3 17,417	33,370
D.C			
Deterred Inflows of Resources			
Offavariable revenue - property taxes	21,208	3(21,208)	
Total Deferred Inflows of Resources	21,208	3 (21,208)	
Evend Delever			
Lungsigned	007 51		
Onassigned	880,514	(886,514)	
Total Fund Balance	886,514	(886,514)	<u> </u>
Total Liabilities, Deferred Inflows, and Fund Balance	\$ 923,675	<u>5</u>	
Net Position			
Unrestricted		890.305	890 305
Net investment in capital assets		530,292	530,292
Total Net Position		<u>\$ 1,420,597</u>	\$ 1,420,597

The accompanying notes are an integral part of these financial statements.

Statement of Activities and Governmental Fund Revenues, Expenditures, and Changes in Fund Balance For the Year Ended September 30, 2021

P		General Fund		ljustments Note 11)	Statement of Activities		
Revenues							
Property taxes	\$	724,896	\$	(1.218)	\$	723.678	
Permits and other fees		24,736		-	•	24.736	
Interest and other income		807				807	
Total Revenues		750,439		(1,218)		749,221	
Expenditures							
Administrative		23,918		-		23,918	
Clearwater studies		171,082		-		171.082	
Compensation and benefits		262,678		4,064		266,742	
Depreciation		-		30,949		30,949	
Directors fees		6,150		-		6,150	
Educational outreach		11,319		-		11,319	
Facility costs		17,524		-		17,524	
Legal and professional		69,403		-		69,403	
Other operating expenses		90,091		-		90.091	
Payroll taxes		18,110		-		18,110	
Spring flow gauge system		15,900		-		15,900	
Utilities		7,571		-		7,571	
Total Expenditures		693,746		35,013	<u></u>	728,759	
Excess of revenues over expenditures		56,693		(56,693)		-	
Change in net position		-		20,462		20,462	
Fund balance/net position:				,		,	
Beginning of year		829,821		570,314		1,400,135	
End of year	\$	886,514	\$	534,083	\$	1,420,597	

The accompanying notes are an integral part of these financial statements.

#### 1. Nature of Activities

The Clearwater Underground Water Conservation District (the "District") was created in 1989 by the Texas State Legislature and resolution of the Commissioners Court of Bell County, Texas, in order to carry out groundwater management in Bell County. The purpose of the District is to develop and implement an efficient, economical and environmentally sound groundwater management program to protect and enhance the water resources of the District. The District is governed by a five member Board of Directors ("the Board") elected by the qualified voters within the boundaries of the District.

## 2. Summary of Significant Accounting Policies

The following is a summary of certain significant accounting policies followed in the preparation of the financial statements of Clearwater Underground Water Conservation District.

The District is a governmental entity with its principal office in Belton, Texas from which it oversees groundwater management in Bell County. Principal revenues are property taxes and permit fees. The board of directors constitutes an on-going entity and is the level of government which has governance responsibilities over all activities.

#### Reporting Entity

The District has developed criteria to determine if the activities of any outside agencies or organizations should be included within its financial statements. The criteria includes the amount of oversight responsibility exercised by the District over the activities of an agency or organization, the scope of public service of an agency or organization, and the nature of any special financing relationships which may exist between the District and an agency or organization. Oversight responsibility includes financial interdependency, selection of the governing authority, designation of management, the ability to significantly influence operations, and accountability for fiscal matters. The District's financial statements include all funds over which the District exercises oversight responsibility. The District does not exercise oversight responsibility over any other reporting entity. Also, the District is not included as a part of any other reporting entity.

#### Government-wide and Fund Financial Statements

The statement of net position and the statement of activities are government-wide financial statements. They report information on all of Clearwater Underground Water Conservation District. The fund financial statements provide reports on the financial condition and results of operations for one fund category - governmental.

#### Measurement Focus, Basis of Accounting, and Financial Statement Presentation

The government-wide financial statements use the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of the related cash flows.

#### 2. Summary of Significant Accounting Policies (Continued)

#### Measurement Focus, Basis of Accounting, and Financial Statement Presentation (Continued)

Governmental fund financial statements use the current financial resources measurement focus and the modified accrual basis of accounting. With this measurement focus, only current assets, current liabilities and fund balances are included on the balance sheet. Operating statements of these funds present net increases and decreases in current assets (i.e., revenues and other financing sources and expenditures and other financing uses).

The modified accrual basis of accounting recognizes revenues in the accounting period in which they become both measureable and available, and it recognizes expenditures in the accounting period in which the fund liability is incurred, if measurable, except for unmatured interest and principal on long-term debt, which is recognized when due. The expenditures related to certain compensated absences and claims and judgments are recognized when the obligations are expected to be liquidated with expendable available financial resources. Clearwater Underground Water Conservation District considers all revenues available if they are collectible within 60 days after year end.

Revenues from local sources consist primarily of permit and other fees and property taxes. These revenues are recognized under the susceptible-to-accrual concept. Miscellaneous revenues are recorded as revenue when received in cash because they are generally not measurable until actually received. Investment earnings are recorded as earned, since they are both measurable and available.

#### Cash and Cash Equivalents

Cash and cash equivalents includes all short-term liquid investments convertible into cash and includes cash and money market accounts with an original maturity of less than three months.

#### Taxes Receivable

Taxes receivable are the amount of ad-valorem taxes which have been collected for the District by the various county tax assessor-collectors which were remitted to the District during the ensuing sixty day period. The assessment and collection of these taxes has been handled solely by the counties involved.

#### Capital Assets

Capital assets, which include office equipment and furniture, are reported in the government-wide financial statements. Assets are recorded at historical cost or estimated historical cost. Capital assets are being depreciated using the straight-line method over the following estimated useful lives:

Equipment	5-15 years
Building and Improvements	10-40 years

## 2. Summary of Significant Accounting Policies (Continued)

#### Revenue Recognition

The District adopted Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers (Topic 606)" as of October 1, 2019, which related to revenue recognition. In general, for revenue not associated with financial instruments, guarantees, and lease contracts, management applies the following steps when recognizing revenue from contracts with customers: (I)identify the contract, (II) identify the performance obligation, (III) determine the transaction price, (IV) allocate the transaction price to the performance obligation and (V) recognize revenue when a performance obligation is satisfied.

#### Budget

The Board of Directors prepared and formally adopted an annual budget prior to the disbursement of funds.

#### 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 revenues and expenses during the reporting period. Actual results could differ from these estimates.

#### Fund Accounting

The District reports the following major governmental funds:

General Fund - This is the District's primary operating fund. It accounts for all financial resources of the District.

Clearwater Underground Water Conservation District does not have any long-term debt for the year ended September 30, 2021.

In June 1999, the Governmental Accounting Standards Board (GASB) issued Statement No. 34, Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments. This statement, known as the "Reporting Model" statement, affects the way the District prepares and presents financial information in addition to requiring the presentation of the Clearwater Underground Water Conservation District's Management's Discussion and Analysis (MD&A). MD&A is considered to be required supplementary data and precedes the financial statements.

#### 2. Summary of Significant Accounting Policies (Continued)

#### Fund Accounting (Continued)

To conform to the requirements of GASB 34, the following changes have been made to the Clearwater Underground Water Conservation District's financial statements:

- Fund balance has been reclassified into the following category of net position: Unrestricted and Net Investment in Capital Assets.
- The balance sheet has been modified to report a statement of net position.
- The balance sheet was adjusted for net capital assets of \$530,292 and compensated absences of \$17,417 on the statement of net position.
- The statement of revenues, expenditures, and changes in fund balance -has been modified to report a statement of activities with operating and non-operating revenues and expenses.
- The statement of revenues, expenditures, and changes in fund balance was adjusted by \$30,949 for depreciation, \$4,064 for increases in compensated absences and \$1,218 for decreases in taxes receivable.

#### Deferred Outflows/Inflows

A deferred outflow of resources represents a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense) until that future time. A deferred inflow of resources represents an acquisition of net position that applies to a future period and therefore will not be recognized as an inflow of resources (revenue) until that future time.

#### 3. Deposits and Investments

The District is required by Government Code Chapter 2256, *The Public Funds Investment Act*, to adopt, implement, and publicize an investment policy. That policy must address the following areas: (1) safety of principal and liquidity, (2) portfolio diversification, (3) allowable investments, (4) acceptable risk levels, (5) expected rates of return, (6) maximum allowable stated maturity of portfolio investments, (7) maximum average dollar-weighted maturity allowed based on the stated maturity date for the portfolio, (8) investment staff quality and capabilities, and (9) bid solicitation preferences for certificates of deposit.

The Public Funds Investment Act ("the Act") requires an annual audit of investment policies. Audit procedures in this area conducted as a part of the audit of the financial statements disclosed that in the areas of investment practices, management reports and establishment of appropriate policies, the District adhered to the requirements of the Act. Additionally, investment practices of the District were in accordance with local policies.

#### 3. Deposits and Investments (Continued)

The Act determines the types of investments which are allowable for the District. These include, with certain restrictions, (1) obligations of the U.S. Treasury, certain U.S. agencies, and the State of Texas, (2) certificates of deposit, (3) certain municipal securities, (4) money market savings accounts, (5) repurchase agreements, (6) bankers acceptances, (7) mutual funds, (8) investment pools, (9) guaranteed investment contracts, and (10) common trust funds.

Additional Contractual Provisions governing deposits and investments are as follows:

The funds of Clearwater Underground Water Conservation District must be deposited and invested under the terms of a contract, contents of which are set out in the Depository Contract Law. The depository bank places approved pledged securities for safekeeping and trust with the District's agent bank in an amount sufficient to protect District funds on a day-to-day basis during the period of the contract. The pledge of approved securities is waived only to the extent of the depository bank's dollar amount of Federal Deposit Insurance Corporation (FDIC) insurance.

At September 30, 2021, the bank balance of the District was \$78,964 with \$-0- of deposits in excess of FDIC coverage.

Analysis of Specific Deposit and Investment Risks

GASB Statement No. 40 requires a determination as to whether the District was exposed to the following specific investment risks at year end and, if so, the reporting of certain related disclosures:

a. Credit Risk - Credit risk is the risk that an issuer or other counter party to an investment will not fulfill its obligations. The ratings of securities by nationally recognized rating agencies are designed to give an indication of credit risk. At year end, the District's investments, other than those which are obligations of or guaranteed by the U.S. Government, are related as to credit quality.

The Clearwater Underground Water Conservation District does not invest in debt securities.

The State Comptroller of Public Accounts exercises oversight responsibility over TexPool. Oversight includes the ability to significantly influence operations, designation of management and accountability for fiscal matters. TexPool is rated AAA by Standard and Poor's. As a requirement to maintain the rating, weekly portfolio information must be submitted to Standard & Poor's, as well as the office of the Comptroller of Public Accounts for review. TexPool operates in a manner consistent with the SEC's Rule 2a7 of the Investment Company Act of 1940. TexPool uses amortized cost rather than market value to report net position to compute share prices. Accordingly, the fair value of the position in TexPool is the same as the value of TexPool shares.

b. Custodial Credit Risk - Deposits are exposed to custodial credit risk if they are not covered by depository insurance and the deposits are uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agent but not in the District's name.

#### 3. Deposits and Investments (Continued)

Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the government, and are held by either the counterparty or the counterparty's trust department or agency but not in the District's name.

At year end, the District was not exposed to custodial credit risk.

c. Concentration of Credit Risk - This risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. At year end, the District had no positions of 5% or more in the securities of a single issuer.

The District's undesignated temporary investments at September 30, 2021, are shown below:

	 Carrying Amount	<u></u>	Fair Value
TexPool	\$ 885,323	\$	885,323
	\$ 885,323		885,323

- d. Interest Rate Risk This is the risk that changes in interest rates will adversely affect the fair value of an investment. At year end, the District has a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates.
- e. Foreign Currency Risk This is the risk that exchange rates will adversely affect the fair value of an instrument. At year end, the District was not exposed to foreign currency risk.

#### 4. Capital Assets

Capital asset activity for the period ended September 30, 2021 was as follows:

	Accumulated Cost Depreciation			ccumulated	Net		
Balance - October 1, 2020 Additions	\$	769,462	\$	(208,221) (30,949)	\$	561,241 (30,949)	
Balance - September 30, 2021	<u> </u>	769,462	\$	(239,170)	\$	530,292	

#### 5. Long-Term Debt

The District has no long-term debt.

#### 6. Risk Management

The District is exposed to various risks of loss related to torts, thefts, damage or destruction of assets, errors and omissions, injuries to employees, and natural disasters. The District purchased commercial insurance to cover general liabilities. There were no significant reductions in coverage in the past year and there were no settlements exceeding insurance coverage.

#### 7. Property Taxes

Clearwater Underground Water Conservation District has contracted with the Tax Appraisal District of Bell County for the assessment and collection of taxes. By September 1 of each year, the rate of taxation is set by the board of directors based upon the valuation of property within the District as of January 1. Taxes are due October 1, and become delinquent after January 31 of the following year.

#### 8. Employee Benefits

#### a. Annual Leave

Annual leave (vacation) is a benefit provided to eligible, full-time, employees of the District. A fulltime 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 up separation. Accrued compensated absences for September 30, 2021 was \$17,417.

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 prepay period and a full-time employee can accumulate up to twelve days with carryover. 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, 2021, the employer match was \$8,879.

## 9. Litigation

At September 30, 2021, the District was not involved in any litigation.

#### 10. Management Review of Subsequent Events

Management has evaluated subsequent events through January 31, 2022, the date on which the financial statements were available to be issued.

#### 11. Reconciliation to Government-Wide Statements

Total fund balance - total governmental funds	\$	886,514
Amounts reported for governmental activities in the statement of net assets are different because:		
Capital assets used in government activities are not financial resources; therfore, they are not reported in the funds.		530,292
Compensated absences are not a current requirement of resources and therefore are not accrued in the general fund.		(17,417)
Deferred inflows of resources are potential revenue that do not meet the "measurable" and "available" criteria; therefore, it is reported in the funds.		21,208
Total net position	_\$1	,420,597

# 11. Reconciliation to Government-Wide Statements (Continued) Net change in fund balance - total governmental funds \$ 56,693 Amounts reported for governmental activities in the statement are different because: Adjustment made on tax receivable (1,218)Adjustment made to compensated absences (4,064)Governmental funds report capital outlays as expenditures; however, in the statement of activities, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. This is the amount by which depreciation of \$30,949 was more than capital outlays of \$-0-. (30,949)Change in net position \$ 20,462

**Budgetary Comparison Schedule** 

# Required Supplementary Information

Budgetary Comparison Schedule - General Fund

For the Year Ended September 30, 2021

	 Budgeted Amounts					Variance with Final Budget	
	 Original	Final Amo		Actual Amounts	Favora <u>(</u> Unfavor		
Revenues							
Property taxes	\$ 748,703	\$	748.703	\$	724 896	\$	(23.807)
Permits and other fees	31,500	·	31,500	÷	24 736	Ŷ	(6 764)
Interest and other income	15,000		50,000		807		(49 193)
Total Revenues	 795,203		830,203		750,439		(79,764)
Expenditures							
Administrative	42.876		37 569		23 918		13 651
Compensation and benefits	269,807		270 167		171.082		13,031
Clearwater studies	205,860		227 638		262 678		(35.040)
Director's fees	12,750		12,750		6 150		6 600
Educational outreach	19,500		16 890		11 319		5 571
Facility costs	18.875		19 740		17 524		2 216
Legal and professional	76,500		76.500		69 403		7 097
Other operating expenses	104,290		124.204		90.091		34,113
Payroll taxes	19,645		19,645		18,110		1 535
Spring flow gauge system	15,900		15,900		15 900		1,555
Utilities	9,200		9,200		7,571		1.629
Total Expenditures	 795,203		830,203		693,746		136,457
Excess Revenues Over (Under) Expenditures	 				56,693		56,693
Net Changes in Fund Balance	-		-		56,693		56.693
Fund Balance - Beginning of the Year	 829,821		829,821		829,821		
Fund Balance - End of the Year	\$ 829,821	\$	829,821	\$	886,514	\$	56,693

# **TEXAS SUPPLEMENTARY INFORMATION**

TSI-2

# **CLEARWATER CONSERVATION UNDERGROUND WATER CONSERVATION DISTRICT** TSI - 2: General Fund Expenditures For the Year Ended September 30, 2021

Personnel expenditures (including benefits)	\$ 262,678
Professional fees: Auditing Legal	7,200 62,203
Utilities	7,571
Clearwater studies	171,082
Facility costs	17,524
Administrative expenditures	23,918
Directors fees	6,150
Educational outreach	11,319
Spring flow gauge system	15,900
Other expenditures	 108,201
Total Expenditures	\$ 693,746

TSI - 3

# TSI - 3: Temporary Investments

For the Year Ended September 30, 2021

General Fund	ID or Certificate Number	Interest Rate	Maturity Date	Balance at End of Yea	Accrued Interest Receivable r at End of Year
Tex Pool - Investment Pool Tex Pool Prime - Investment Pool	449/7935800001 590/7935800001	0.0 <b>374%</b> 0.0 <b>68</b> 5%	-	\$ 439,9 445,4	13 \$ - 10
Total - All Funds				<u>\$ 885,3</u>	<u>23</u> <u>\$</u> -

See independent auditors' report.

TSI-4

# TSI - 4: Taxes Levied and Receivable

For the Year Ended September 30, 2021

	 aintenance Taxes
Taxes receivable, beginning of year	\$ 22,426
2020 original tax levy	740,538
Less abatements	-
Total to be accounted for	 762,964
Tax collections	
Current year	730,081
Prior years	11,675
Total collections:	 741,756
Taxes receivable, end of year	\$ 21,208
Taxes receivable, by year	
2020	\$ 6.791
2019	3.526
2018	2.219
2017	1.697
2016 and prior	6.975
Taxes receivable, end of year	\$ 21,208

	2020	2019	2018	2017
Property valuations Property valuations, net taxable	\$ 22,630,374,553	\$ 20,531,428,738	\$ 18,670,513,065	\$ 18,057,233,710
Tax rates per \$100 valuation Maintenance tax rates	\$0.00327	\$0.00357	\$0.00383	\$0.00385
Total tax rates per \$100 valuation	\$0.00327	\$0.00357	\$0.00383	\$0.00385
Original tax levy:	740,538	732,972	715,081	695,203
Percent of taxes collected to taxes levied	98.59%	96.60%	96.75%	97.22%

 $\mathrm{TSI}-7$ 

TSI - 7: Comparative Schedule of Revenues and Expenditures

General Fund - Five Years Ended

For the Year Ended September 30, 2021

	 Amounts									
	 2021		2020		2019		2018		2017	
General Fund										
Revenues										
Property taxes	\$ 724,896	\$	716,887	\$	684,759	\$	660,854	S	640,702	
Permits and other fees	24,736		13,866		6,689		7,767	-	9 120	
Interest and other income	 807		11,935		15,580		13,964		3,266	
Total revenues	 750,439		742,688		707,028		682,585		653,088	
Expenditures										
Personnel	280,788		278,509		264,480		233,264		219.219	
Professional fees	69,403		41,025		41,330		62,950		54.614	
Clearwater studies	171,082		287,509		123,472		84,620		141.401	
Administrative expenditures	23,918		36,110		25,528		28,126		19,897	
Other expenditures	 148,555		141,412		170,707		315,528		115,597	
Total expenditures	 693,746		784,565		625,517		724,488		550,728	
Excess (Deficient) revenues										
over expenditures	 56,693	\$	(41,877)	\$	81,511	\$	(41,903)	\$	102,360	

Percent of Total Fund Revenues					
2021	2020	2019	2018	2017	
96.6%	96.5%	96.9%	96.8%	98.1%	
3.3%	1.9%	0.9%	1.1%	1.4%	
0.1%	1.6%	2.2%	2.0%	0.5%	
100.0%	100.0%	100.0%	100.0%	100.0%	
37.4%	37.5%	37.4%	34.2%	33.6%	
9.2%	5.5%	5.8%	9.2%	8.4%	
22.8%	38.7%	17.5%	12.4%	21.7%	
3.2%	4.9%	3.6%	4.1%	3.0%	
19.8%	19.0%	24.1%	46.2%	17.7%	
92.4%	105.6%	88.5%	106.1%	84.3%	
7.6%	-5.6%	11.5%	-6.1%	15.7%	

TSI - 8

## TSI - 8: Board Members, Key Personnel, and Consultants

For the Year Ended September 30, 2021

Complete District Mailing Address:	P.O. Box 1989, Belton, TX 76513
District Business Telephone Number:	(254) 933-0120
Submission Date of the Most Recent District Registration Form: (TWC Sections 36.054 and 49.054)	December 8, 2020

\$7,200

Limit on Fees of Office That a Director may Receive During a Fiscal Year: (TWC Section 49.060)

Term of Office (Elected or Appointed) or Date Hired	Fees of Office Paid for the Year Ended 9/30/2021		Title at Year End	
Elected Nov. 2020-2024	\$	-	President	
Elected Nov. 2018-2022	\$	2,100	Secretary	
Elected Nov. 2020-2024	\$	2,250	Director	
Elected Nov. 2018-2022	\$	-	Director	
Elected Nov. 2018-2022	\$	1,800	Vice President	
June 2011	\$	89,888	General Manager	
October 2011	\$	49,124	Office Manager	
July 14, 2021	\$	**	Auditor	
2012	\$	91,848	Attorney	
1989	\$	7,692	Tax appraiser/collector	
	Term of Office (Elected or Appointed) or Date Hired Elected Nov. 2020-2024 Elected Nov. 2018-2022 Elected Nov. 2018-2022 Elected Nov. 2018-2022 Elected Nov. 2018-2022 June 2011 October 2011 July 14, 2021 2012 1989	Term of OfficeH(Elected orOfAppointed)foror Date HiredEndeElected\$Nov. 2020-2024\$Elected\$Nov. 2018-2022\$Elected\$Nov. 2020-2024\$Elected\$Nov. 2018-2022\$Elected\$Nov. 2018-2022\$Elected\$Nov. 2018-2022\$June 2011\$June 2011\$July 14, 2021\$2012\$1989\$	Term of Office (Elected or Appointed) or Date HiredFees of Office Paid for the Year Ended 9/30/2021Elected Nov. 2020-2024\$Elected Nov. 2018-2022\$Elected Nov. 2018-2022\$Elected Nov. 2018-2022\$Elected Nov. 2018-2022\$Elected Nov. 2018-2022\$Elected Nov. 2018-2022\$Elected Nov. 2018-2022\$Elected Nov. 2018-2022\$June 2011 June 2011\$\$\$9,888 49,124July 14, 2021 2012\$\$\$2012 2012\$\$\$91,848 1989\$7,692	



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

To the Board of Directors Clearwater Underground Water Conservation District

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, each major fund, and the aggregate remaining fund information of Clearwater Underground Water Conservation District, as of and for the year ended September 30, 2021, and the related notes to the financial statements, which collectively comprise Clearwater Underground Water Conservation District's basic financial statements, and have issued our report thereon dated January 31, 2022.

#### **Internal Control over Financial Reporting**

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

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

#### **Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the 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.

dwich, Montigins Stage, P +

Temple, Texas January 31, 2022

#### FINANCIAL STATEMENT FINDINGS

There were no findings in the current year.

## **CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT** Schedule of Prior Year Findings and Corrective Action Plan For the Year Ended September 30, 2021

There were no prior year findings.

•


Year	Exer	npt Wells	Non	-Exempt Wells		Monito	or Wells	Total
	Grandfathered	New	Grandfathered	Class 1	Class 2	Water	Envr	
2002 - 2020	4424	1064	105	36	61	26	121	5837
2021 - Jan	1	14	0	0	0	0	0	15
Feb	1	5	0	0	0	0	0	6
Mar	2	3	0	1	1	0	0	7
Apr	5	10	1	0	0	0	0	16
May	2	5	0	0	0	0	0	7
June	2	4	0	0	1	0	0	7
July	1	6	0	0	4	0	0	11
Aug	0	0	0	0	0	0	0	0
Sep	1	3	0	0	0	0	0	4
Oct	1	9	0	0	1	0	0	11
Nov	1	4	0	0	0	0	0	5
Dec	0	7	0	1	2	0	0	10
<b>Total 202</b> 1	17	70	1	2	9	0	0	99
Totals	4441	1134	106	38	70	26	121	5936

### Well Registration Totals - December 2021

## Adjustments

Adjustment Type	Exen	npt Wells	Non	-Exempt Wells		Monito	or Wells	Total
	Grandfathered	New	Grandfathered	Class 1	Class 2	Water	Envr	
2002-Present	4441	1134	106	38	70	26	121	5936
Never Drilled	N/A	-27	N/A	-3	-4	0	-1	-35
Plugged	-203	-42	-18	-2	-1	-2	-53	-321
Totals	4238	1065	88	33	65	24	67	5580



### Non-exempt Wells--Edwards BFZ

Acre-Feet											2021 Mon	thly Producti	ion (gallons)							
	State #		Hist.	Oper.	Total Pormit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	<u>Oct</u>	Nov	Dec	YTD	YTD ac-ft	% Permit
File NO	State #	Chick Landscaning	Permit	2 20	2 20	2 400	2 /00	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	28 800	0.09	/10/
N2-06-002G	580/132/	Chick Landscaping Well #2		2.23	2.23	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	4%
112 00 0020	5004524				<u> </u>	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400	20,000	0.05	
		Jarrell-Schwertner WSC	301.20	153.00	454.20	10,932,830	10,327,563	10,790,258	9,313,790	8,110,563	10,824,731	11,084,416	13,581,962	15,507,043	11,954,662	12,690,024	11,346,720	136,464,562	418.79	92%
N2-02-041G	5804808	JSWSC (Prairie Dell 2)				4,382,863	4,570,743	3,911,546	3,589,818	3,431,320	4,478,944	5,140,854	5,897,501	6,393,180	5,019,641	4,704,407	4,758,147	56,278,964	172.71	57%
N2-02-042G	5804811	JSWSC (Prairie Dell 5)				2,998,193	3,296,778	4,018,512	3,285,032	2,721,857	3,622,956	4,913,675	4,358,371	4,946,802	3,790,339	4,006,313	3,575,493	45,534,321	139.74	46%
N2-03-005P	5804818	JSWSC (Prairie Dell 8)				3,551,774	2,460,042	2,860,200	2,438,940	1,957,386	2,722,831	1,029,887	3,326,090	4,167,061	3,144,682	3,979,304	3,013,080	34,651,277	106.34	23%
		Salado WSC	1,472.30	36.99	1,509.29	17,995,000	21,514,000	21,368,000	28,512,000	22,278,000	26,593,000	28,602,000	40,501,000	43,742,000	28,452,000	23,165,000	21,658,000	324,380,000	995.49	66%
N2-02-003G	5804602	Salado WSC (#1)				3,512,000	3,632,000	4,203,000	3,897,000	3,209,000	3,116,000	3,173,000	3,258,000	3,414,000	4,014,000	3,889,000	4,050,000	43,367,000	133.09	9%
N2-02-004G	5804604	Salado WSC (#2)				-	-	-	-	-	-	-	-	-	-	-	-	-		0%
N2-02-005G	5804508	Salado WSC (#3)				8,447,000	4,639,000	7,217,000	9,157,000	8,481,000	8,489,000	8,576,000	8,585,000	9,060,000	10,317,000	10,023,000	10,421,000	103,412,000	317.36	22%
N2-02-006G	5804621	Salado WSC (#4)				400,000	-	-	1,000	-	85,000	7,000	54,000	213,000	11,000	5,000	6,000	782,000	2.40	0%
N2-02-007G	5804509	Salado WSC (#5)				500,000	2,790,000	17,000	834,000	-	372,000	112,000	906,000	1,674,000	778,000	33,000	57,000	8,073,000	24.78	2%
N2-02-008G	5804510	Salado WSC (#6)				39,000	4,187,000	3,973,000	6,409,000	160,000	1,999,000	927,000	3,128,000	6,735,000	9,693,000	7,606,000	5,993,000	50,849,000	156.05	10%
N2-02-009G	5804626	Salado WSC (#7)				8,000	964,000	37,000	859,000	251,000	678,000	431,000	1,772,000	4,009,000	3,515,000	1,558,000	1,122,000	15,204,000	46.66	3%
N2-02-010G	5804512	7KX Ranch (#8)				-	-	-	2,753,000	10,177,000	11,854,000	15,376,000	22,798,000	18,637,000	124,000	49,000	-	81,768,000	250.94	17%
N2-02-011G	5804513	7KX Ranch (#9)				5,089,000	5,302,000	5,921,000	4,602,000	-	-	-	-	-	-	2,000	9,000	20,925,000	64.22	4%
		Schwertner Farms	328.90	74.05	402.95	6,633,530	7,417,709	8,042,550	8,385,318	8,780,287	9,133,413	9,847,128	10,026,041	9,515,495	11,454,036	7,309,135	5,581,822	102,126,464	313.42	78%
N2-04-001G	5812302	Schwertner Farms CCL #1				1,415,731	1,786,978	1,887,960	2,028,396	1,979,773	2,016,879	2,203,818	2,332,300	2,227,143	2,374,104	1,496,426	1,000,267	22,749,775	69.82	17%
N2-04-002G	5812303	Schwertner Farms CCL #2				1,415,731	1,786,978	1,887,960	2,028,396	1,979,773	2,016,879	2,203,818	2,332,300	2,227,143	2,374,104	1,496,426	1,000,267	22,749,775	69.82	17%
N2-04-003G	5812304	Schwertner Farms CCL #3				1,415,731	1,786,978	1,887,960	2,028,396	1,979,773	2,016,879	2,203,818	2,332,300	2,227,143	2,374,104	1,496,426	1,000,267	22,749,775	69.82	17%
N2-04-004G	5812206	Schwertner Farms Eastland W.				291,822	282,948	353,634	311,372	330,429	339,150	423,606	400,945	363,834	368,764	330,990	279,310	4,076,804	12.51	3%
N2-04-005G	5812305	Schwertner Farms Blackwell				210,800	185,640	205,530	141,780	263,500	346,579	422,433	406,181	392,445	366,265	351,900	361,828	3,654,881	11.22	3%
N2-04-006G	5812306	Schwertner Farms ES #1				109,510	92,680	109,765	142,150	164,573	140,790	164,573	119,251	125,337	1,445,447	108,408	104,155	2,826,639	8.67	2%
N2-04-007G	5812307	Schwertner Farms ES #2				786,369	621,775	725,424	742,832	900,626	1,082,832	1,043,460	934,898	937,737	1,012,367	900,014	786,964	10,475,298	32.15	8%
N2-04-008G	5812308	Schwertner Farms ES #3				574,294	507,212	594,252	577,116	755,140	734,400	728,110	714,119	633,828	722,381	710,345	674,254	7,925,451	24.32	6%
N2-10-006P	5812604	Schwertner Farms Little D.				413,542	366,520	390,065	384,880	426,700	439,025	453,492	453,747	380,885	416,500	418,200	374,510	4,918,066	15.09	4%
		Stagecoach Inn	35.30	7.02	42.32	27,200	55,300	131,100	252,600	231,700	521,000	518,400	305,200	496,100	372,100	131,900	35,600	3,078,200	9.45	22%
N2-02-002G	5804623	Stagecoach (deep)				27,200	55,300	131,100	252,600	231,700	521,000	518,400	305,200	496,100	372,100	131,900	35,600	3,078,200	9.45	22%
N2-02-037G	1	Stagecoach (spring)				-	-	-	-	-	-	-	-	-	-	-	-	-	<u> </u>	0%

### Non-exempt Wells--Edwards BFZ

				Acre-Feet							2021 Mont	hly Productio	on (gallons)							
			Hist.	Oper.	Total	lan	Feb	Mar	Anr	May	lun	Iul	Διισ	Sen	Oct	Nov	Dec	YTD	YTD ac-ft	% Permit
File No	State #	Well Name	Permit	Permit	Permit	<u>5011</u>	<u>100</u>	<u>iviai</u>		way	<u>5011</u>	<u>501</u>	<u>- Ma</u>	<u>565</u>	<u></u>	<u></u>	Dee			
		Not Aggregated				-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N1-07-001P	4061802	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%
N1-07-003P	5805405	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%
N1-07-005P	5804817	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%
N1-09-004P	5804322	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%
N1-10-001P	4061713	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%
N1-13-002P	4061714	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%
N1-14-001P	5805406	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%
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%
N1-20-001P	4061710	Dillman Trust	-	0.59	0.59	16,060	16,060	16,060	16,060	16,060	16,060	16,060	16,060	16,060	16,060	16,060	16,060	192,720	0.59	100%
N1-20-002P	4060913	Donald & Sheryl Rich	-	0.39	0.39	-	-	10,706	10,706	10,706	10,706	10,706	10,706	10,706	10,706	10,706	10,706	107,060	0.33	84%
N2-02-016G	5804641	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	5%
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%
N2-04-017G	5804643	Sonic of Salado	-	0.86	0.86	2,418	2,390	2,130	2,260	2,140	2,160	2,430	2,640	2,480	2,280	2,130	-	25,458	0.08	9%
N2-07-005G	5803808	RLF Salado Quarries (Office)	-	3.91	3.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-07-010G	5804637	Bloomer Mfg.	-	2.07	2.07	-	-	-	4,500	3,677	3,234	4,172	7,774	11,972	16,132	14,306	14,305	80,072	0.25	12%
N2-08-004P	5804644	Lonnie Sherman	-	1.10	1.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-09-002P	5804645	O. W. Lowery	-	1.84	1.84	10,070	16,340	50,440	48,800	9,850	44,290	74,880	52,070	86,690	52,300	58,180	42,300	546,210	1.68	91%
N2-09-004G	5804646	Salado UMC	-	1.86	1.86	8	401	2,569	3,089	30	1,000	3,740	2,123	6,091	7,914	4,216	3,978	35,159	0.11	6%
N2-10-002P	5804317	James Construction	-	0.96	0.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-11-004P	5804631	Charles Broecker	-	0.99	0.99	-	-	-	-	6,000	6,000	8,000	20,000	14,000	18,000	15,000	8,000	95,000	0.29	29%
N2-11-005P	5805108	James & Terry Boston	-	1.66	1.66	1,690	882	1,360	1,436	1,165	1,934	2,302	1,682	2,036	1,563	1,689	1,371	19,110	0.06	4%
N2-15-003P	5804325	Anthony Craft	-	0.60	0.60	430	820	-	-	-	480	200	300	890	990	990	-	5,100	0.02	3%
N2-15-004P	5804633	Scott Law Well #1	-	0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-15-005P	5804634	Scott Law Well #2, Guthrie	-	0.60	0.60	3,632	3,643	13,386	8,075	15,407	15,735	1,654	27,770	23,060	6,730	9,062	7,985	136,139	0.42	70%
N2-15-006P		Scott Law Well #3	-	0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-15-007P		Scott Law Well #4	-	0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-15-008P		Scott Law Well #5	-	0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-15-009P	5805110	Scott Law Well #6 - Reed	-	0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	_	-	0%
N2-15-010P	5805109	Scott Law Well #7 - Brady Woods	-	0.60	0.60	6.780	5.280	32.290	30.340	28.890	15.580	15.580	15.580	12.400	10.420	7.030	-	180.170	0.55	92%
N2-15-011P		Scott Law Well #8	_	0.60	0.60	-	-	-	-	-	-	-		-	-	-	-		-	0%
N2-15-012P	5804316	Scott Law Well #9 - Jana Lever	_	0.60	0.60	-	_	-	-	-	-	_	-	-	-	-	_	-	-	0%
N2-16-002G	5804647	Charles Dunifer	_	0.60	0.60	460	378	270	6,292	400	500	9,300	20,600	21,300	1.600	2,900	3,700	67,700	0.21	35%
N2-17-001P	5804305	Heart of Texas Feed	_	0.14	0.14	670	510	530	690	540	490	770	170	340	620	1 270	470	7.070	0.02	15%
N2-19-007P	5804640	Brazos Valley Equine Hospital	-	1 32	1 32	25 600	14 800	26 300	28 900	28 700	30 900	30,000	25 800	26 700	24 700	22 000	22 300	306,700	0.94	71%
N2-20-001G	5804319	SDG Properties	-	0.67	0.67		-			-	-							-	-	0%
N2-21-006P	5804321	Salado BV Park	-	0.37	0.37							5 400		68 600	17 700	6 700	6 000	104 400	0.32	100%
N2-21-007P	5004521	Belton Partners LLC		2 50	2 50									-		-		-	-	0%
112 21 0071	ļ			2.50	2.50	_	_	_	_	_	_	_	_	_	-	_	_		_	U/0
Totals:			2.208.20	277.26	2.481.55	35.888.351	39.608.049	40.719.922	46.856.829	39.756.088	47.453.186	50.469.111	64.849.451	69.795.936	52.652.486	43.700.271	38.991.290	570.740.970	1.751.54	71%

71%

### Non-exempt Wells--Trinity

				Acre-Feet							2021 Mon	thly Product	ion (gallons)	1						
File No	State #	Well Name	Hist. Permit	Oper. Permit	Total Permit	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	May	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	YTD	YTD ac-ft	% Permit
		Armstrong WSC	154.90	333.00	487.90	1,288,130	449,140	1,212,520	1,918,540	1,420,080	1,891,140	2,998,070	3,008,390	1,045,610	3,805,610	3,165,000	3,620,000	25,822,230	79.25	16%
N2-02-024G	5805202	Armstrong WSC #1	-	-	-	130	140	520	7,540	10,080	15,140	9,070	10,390	10,610	5,610	-	-	69,230	0.21	0%
N2-10-001P	5805502	Armstrong WSC #2	-	-	-	1,288,000	449,000	1,212,000	1,911,000	1,410,000	1,876,000	2,989,000	2,998,000	1,035,000	3,800,000	3,165,000	3,620,000	25,753,000	79.03	16%
		Bell Milam Falls WSC	262.20	-	262.20	3,429,200	4,285,100	7,153,400	6,644,900	3,878,800	7,585,150	7,669,000	10,030,200	10,877,900	8,578,400	7,077,300	4,171,900	81,381,250	249.75	95%
N2-02-038G	5806601	Bell-Milam-Falls WSC (Rogers)	-	-	-	3,429,200	4,285,100	3,795,400	2,678,900	808,800	4,589,150	4,236,000	5,401,200	5,924,900	4,033,400	3,347,300	1,442,900	43,972,250	134.95	51%
N2-02-046G	5814402	Bell-Milam-Falls WSC (Bartlett)	-	-	-	-	-	3,358,000	3,966,000	3,070,000	2,996,000	3,433,000	4,629,000	4,953,000	4,545,000	3,730,000	2,729,000	37,409,000	114.80	44%
		Central Texas WSC	-	1,776.00	1,776.00	8,351,000	9,331,000	8,386,000	7,925,000	9,491,000	8,745,800	13,875,000	20,686,000	17,815,000	9,830,000	8,595,000	1,704,000	124,734,800	382.80	22%
N2-14-004P	5804203	CTWSC Doc Curb	-	-	-	81,000	152,000	154,000	-	-	15,800	2,371,000	9,084,000	5,671,000	-	-	-	17,528,800	53.79	3%
N2-14-005P	5806202	CTWSC System Split Well	-	-	-	8,270,000	9,179,000	8,232,000	7,925,000	9,491,000	8,730,000	11,504,000	11,602,000	12,144,000	9,830,000	8,595,000	1,704,000	107,206,000	329.00	19%
		City of Troy	119.90	100.60	220.50	607,600	1,235,400	-	1,225,800	2,879,600	3,357,500	4,314,200	5,308,100	6,720,900	3,718,100	3,113,300	1,039,300	33,519,800	102.87	47%
N2-02-036G	4054503	City of Troy #1	-	-	-	607,600	1,235,400	-	1,225,800	2,879,600	3,357,500	4,314,200	5,308,100	6,720,900	3,718,100	3,113,300	1,039,300	33,519,800	102.87	47%
N2-15-002P	4054201	City of Troy #2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
			60.70	90 CF	150.25	1 222 000	2 762 000	F70 000	F72 000	1 1 20 000	720.000	752.000	1 269 000	2 024 000	1 754 000	740.000	(22,000	16 194 000	40.67	220/
N2-02-034G	4063501	East Bell WSC #1	69.70	80.05	150.35	1,332,000	2,762,000	191,000	186,000	426,000	147,000	752,000	332,000	3,934,000	628,000	202.000	219,000	6 007 000	49.67	55% 18%
N2-02-0340	5806301	East Bell WSC #2	-	-	-	302,000	1,530,000	388,000	386,000	703,000	583,000	752,000	936,000	2,520,000	1,126,000	538,000	413,000	10,177,000	31.23	21%
		Leon River Turkey Farms	60.90	-	60.90	21,800	15,500	19,200	22,300	23,200	24,000	27,400	29,200	28,600	26,400	24,100	23,100	284,800	0.87	1%
N2-02-043G	4053301	Leon River Turkey (East)	-	-	-	10,200	5,200	8,300	11,200	9,700	10,100	11,200	12,200	12,000	11,500	10,700	10,200	122,500	0.38	1%
N2-02-044G	4053302	Leon River Turkey (West)	-	-	-	1,000	800	1,200	1,600	1,700	1,800	2,400	2,600	2,500	1,700	1,200	1,100	19,600	0.06	0%
N2-02-045G	5805403	Leon River Turkey	-	-	-	10,600	9,500	9,700	9,500	11,800	12,100	13,800	14,400	14,100	13,200	12,200	11,800	142,700	0.44	1%
		Lhoist	40.00	-	40.00	25,057	19,666	26,549	24,362	24,157	26,870	26,748	30,354	25,681	-	19,666	-	249,110	0.76	2%
N2-03-002G	4060101	LHoist #1	-	-	-	25,057	19,666	26,549	24,362	24,157	26,870	26,748	30,354	25,681	-	19,666	-	249,110	0.76	2%
N2-03-003G	4060102	LHoist #2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
		Moffat WSC	47.70	157.80	205.50	457,000	5,246,000	6,072,000	3,430,000	3,518,000	6,879,000	10,071,000	12,376,000	7,890,000	-	2,094,000	3,784,000	61,817,000	189.71	92%
N2-02-022G	4053406	Moffat WSC #1	-	-	-	371,000	458,000	79,000	551,000	619,000	1,209,000	1,380,000	2,638,000	2,109,000	-	405,000	465,000	10,284,000	31.56	15%
N2-13-001P	4053507	Moffat WSC #2	-	-	-	86,000	4,788,000	5,993,000	2,879,000	2,899,000	5,670,000	8,691,000	9,738,000	5,781,000	-	1,689,000	3,319,000	51,533,000	158.15	77%
		Pendleton WSC	75.30	47.07	122.37	2,64 <u>8,900</u>	3,11 <u>5,400</u>	3,65 <u>0,200</u>	3,42 <u>7,100</u>	1,94 <u>1,900</u>	1,81 <u>2,500</u>	2,48 <u>4,900</u>	4,08 <u>1,300</u>	3,89 <u>4,200</u>	3,115,700	3,05 <u>1,000</u>	2,50 <u>1,900</u>	35,7 <u>25,00</u> 0	109.64	_90 <u>%</u>
N2-02-047G	4054401	Pendleton WSC (#1)	-	-	-	1,432,700	1,587,600	1,968,700	1,824,200	970,600	-	1,121,400	2,139,200	2,031,500	1,619,400	1,588,900	1,304,200	17,588,400	53.98	44%
N2-02-048G	4054502	Pendleton WSC (#2)	-	-	-	1,216,200	1,527,800	1,681,500	1,602,900	971,300	1,812,500	1,363,500	1,942,100	1,862,700	1,496,300	1,462,100	1,197,700	18,136,600	55.66	45%

### Non-exempt Wells--Trinity

				Acre-Feet							2021 Mon	thly Product	ion (gallons)							
File No	State #	Well Name	Hist. Permit	Oper. Permit	Total Permit	Jan	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	YTD	YTD ac-ft	% Permit
		Not Aggregated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N1-05-001P	4057907	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%
N1-07-002P	4060405	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%
N1-08-001P	4057908	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%
N1-09-003P	4053707	Laurie Gehring	-	0.34	0.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N1-11-002P	5803201	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%
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%
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%
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%
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%
N1-17-001P		Robert & Victoria Lewis	-	0.82	0.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N1-17-002P	5802506	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%
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	99%
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%
N1-18-004P	5803404	Justin Scott	-	0.22	0.22	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	6,083	72,996	0.22	102%
N1-19-003P	5802505	Gary Kelley	-	0.20	0.20	5,353	5,353	5,353	5,353	5,353	5,353	5,353	5,353	5,353	5,353	5,353	5,353	64,236	0.20	100%
N1-19-007P	4057906	Cristy & Larry Bickel	-	0.60	0.60	-	-	-	-	-	16,292	16,292	16,292	16,292	16,292	16,292	16,292	114,044	0.35	58%
N1-19-008P		Cristy & Larry Bickel	-	0.60	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-001G	5806102	Bell Co. WCID #2	184.20	21.60	205.80	2,792,000	2,177,000	2,692,000	3,054,000	2,538,000	2,649,000	2,425,000	2,424,000	2,969,000	2,676,000	2,670,000	2,432,000	31,498,000	96.66	47%
N2-02-012G	5807701	City of Rogers	139.40	-	139.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-013G	5805901	City of Holland	158.40	-	158.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-017G	4055701	Oenaville / Belfalls WSC	16.20	20.79	36.99	42,108	303,776	79,959	87,953	87,140	32,847	43,903	48,958	46,560	223,191	53,681	50,211	1,100,287	3.38	9%
N2-02-035G	5804642	Mill Creek Country Club, LLC	61.90	60.00	121.90	-	-	-	-	-	-	-	-	1,440,000	1,440,000	-	-	2,880,000	8.84	7%
N2-02-039G	4054801	Little Elm Valley WSC	91.20	-	91.20	1,889,900	2,670,700	2,347,900	2,297,900	1,755,100	2,200,300	3,241,700	3,508,700	4,439,800	2,307,150	2,261,850	1,163,200	30,084,200	92.33	101%
N2-02-040G	4062801	Bell Co. WCID #5	20.70	8.00	28.70	1,800	1,304,700	56,000	566,800	528,700	123,400	402,700	725,800	865,200	587,600	168,200	-	5,330,900	16.36	57%
N2-03-001G	4062401	Cen. TX Vet. Hospital	-	60.00	60.00	4,200	1,100	-	-	-	167,900	-	43,400	500	-	-	-	217,100	0.67	1%
N2-04-011P	4061407	Central Texas Strike Zone	-	1.30	1.30	586	-	3,959	-	806	1,033	1,749	1,956	2,717	1,290	1,240	-	15,336	0.05	4%
N2-05-003P	40589	Texas Veterans Land Board	-	36.80	36.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-05-004P	5804323	Salado B.P. / Ronnie Tynes	-	11.05	11.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-06-008P	4053709	VillasDelSol / John Henderson	-	3.13	3.13	13,000	3,000	63,000	40,000	20,000	98,000	41,000	102,000	72,000	23,500	26,000	18,000	519,500	1.59	51%
N2-07-003G	5803503	Killeen Crushed Stone	-	36.00	36.00	1,169,800	-	-	390,000	-	55,700	400,900	365,900	1,100,500	12,000	276,000	543,700	4,314,500	13.24	37%
N2-07-006G	5802101	Maxdale Cowboy Church	-	0.16	0.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-07-007G	5803303	Garden of Hope of Central Texas	-	0.01	0.01	270	270	270	270	270	270	270	270	270	270	270	270	3,240	0.01	99%
N2-07-008G	5803809	Apache Stone	-	22.66	22.66	477,060	424,890	645,850	597,000	549,420	664,510	553,900	641,340	720,610	64,359	63,730	75,453	5,478,122	16.81	74%
N2-07-009G	4058701	Parrie Haynes Ranch	-	13.80	13.80	25,542	24,603	31,887	25,613	40,920	26,937	38,992	25,892	36,658	9,007	30,384	51,292	367,727	1.13	8%
N2-07-011G	5804624	Stagecoach (Spa)	-	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-07-012G	4053710	Temple Park Estates	-	9.50	9.50	39,710	44,000	70,090	66,800	125,710	1,230,000	119,880	64,420	173,860	96,550	151,970	76,500	2,259,490	6.93	73%
N2-08-001P	5803912	Kirby Stone	-	16.03	16.03	-	-	-	-	-	-	-	94,000	228,000	180,000	22,290	55,480	579,770	1.78	11%
N2-08-002P	5804314	Salado ISD (HS)	-	21.41	21.41	60,700	210,100	-	57,300	92,900	150,200	82,000	621,600	571,800	500	300	194,600	2,042,000	6.27	29%
N2-08-003G	4059601	City of Harker Heights	-	1.16	1.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-09-001P	4053508	Kimberly Langston	-	12.32	12.32	1,891	1,079	5,380	8,220	1,860	-	120,090	260,000	461,680	1,109,910	320	460	1,970,890	6.05	49%
N2-09-005G	5803707	R S Materials Group	-	16.67	16.67	274,866	-	441,331	199,738	455,867	389,142	469,045	415,819	358,822	445,820	231,097	424,694	4,106,241	12.60	76%
N2-11-003G	4061408	UMHB	-	7.50	7.50	-	-	4,345	6,337	1,192	10,031	5,266	15,515	14,998	3,650	2,597	2,102	66,033	0.20	3%
N2-13-002P	5806201	Trinity Oasis LLC (Jack Hilliard Dozer and Materials)	-	279.00	279.00	6,223,900	5,370,700	10,322,200	4,890,700	8,974,100	6,839,499	6,726,900	6,813,900	10,075,600	4,541,300	3,407,200	5,447,400	79,633,399	244.39	88%
N2-19-001P	5804705	CenTex Acres 1 (Winterowd)	-	0.61	0.61	-	-	-	-	-	-	-	-	-	-	355	1,830	2,185	0.01	1%
N2-19-002P	5804706	CenTex Acres 2 (Penney)	-	0.61	0.61	-	-	-	-	-	-	-	-	-	2,270	4,800	5,270	12,340	0.04	6%
N2-19-003P	4053708	Eveans	-	0.50	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-20-002P	5803406	Hines Texas, LLC #1	-	4.14	4.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-20-003P	5803407	Hines Texas, LLC #2	-	4.14	4.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-20-004P	5803408	Hines Texas, LLC #3	-	4.14	4.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-20-005P		Hines Texas, LLC #4	-	4.14	4.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-20-007G	5804707	Victory Rock LLC	-	2.00	2.00	-	-	-	-	-	-	-	-	-	9,700	19,800	-	29,500	0.09	5%
N2-21-001P		Victory Rock LLC	-	30.00	30.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-21-003P		David & Denea Reaves	-	0.54	0.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-21-005P	5802601	Nathan & Danielle McNeal	-	0.40	0.40	-	-	-	-	-	-	-	-	1,700	3,500	4,000	3,900	13,100	0.04	10%
Totals:			1,235.10	2,870.92	3,885.02	31,451,629	39,268,733	44,136,649	37,752,242	39.751.331	45.980.630	57.181.514	73.280.915	76.102.067	44.855.678	37.565.351	28.312.463	555.639.202	1.705.19	44%

### Non-exempt Wells--Other

									2021 Mon	thly Product	ion (gallons)									
File No	State #	Well Name	Hist. Permit	Oper. Permit	Total Permit	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	<u>Oct</u>	Nov	<u>Dec</u>	YTD	YTD ac-ft	% Permit
		Bradley Ware	-	160.00	160.00	1,987,694	1,303,405	2,085,449	3,160,758	814,628	1,727,012	2,574,225	3,030,417	2,313,544	1,759,597	1,173,065	1,857,353	23,787,147	73.00	46%
N2-11-001G	5802106	Bradley B. Ware	-	-	-	1,368,576	1,010,139	1,564,087	2,248,374	684,288	1,270,820	1,564,086	1,987,693	1,694,427	1,238,235	716,873	1,173,065	16,520,663	50.70	32%
N2-11-002G	5802107	Bradley B. Ware	-	-	-	619,118	293,266	521,362	912,384	130,340	456,192	1,010,139	1,042,724	619,117	521,362	456,192	684,288	7,266,484	22.30	14%
		Strasburger Farms	271.80	33.84	305.64	-	-	-	-	-	7,710,000	-	5,832,000	6,426,000	-	-	-	19,968,000	61.28	20%
N2-02-026G		DO NOT USE - Strasburger Farms (#2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-027G	5806801	Strasburger Farms (#4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-028G		DO NOT USE-Strasburger Farms (#5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-029G	5806802	Strasburger Farms (#6)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-030G	5806901	Strasburger Farms (#10)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-031G	5806902	Strasburger Farms (#11)	-	-	-	-	-	-	-	-	3,120,000	-	-	-	-	-	-	3,120,000	9.57	3%
N2-02-032G		Strasburger Farms (#15)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-02-033G	5806804	Strasburger Farms (#16)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-12-002P	5806805	Strasburger Farms (#5)	-	-	-	-	-	-	-	-	1,296,000	-	-	-	-	-	-	1,296,000	3.98	1%
N2-18-001P	5806501	Strasburger Farms (#2)	-	-	-	-	-	-	-	-	3,294,000	-	5,832,000	6,426,000	-	-	-	15,552,000	47.73	16%
			•						•								• •			
		Not Aggregated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N1-04-001P	5806701	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%
N1-11-001P	4060603	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%
N1-16-007P	5805903	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%
N1-21-001P	5814101	Kelly Carter	-	0.87	0.87	-	-	-	-	-	23,664	23,664	23,664	23,664	23,664	23,664	23,664	165,648	0.51	58%
N2-06-007G	4061903	Misty Creek HOA	-	6.45	6.45	17,050	17,000	17,500	15,500	12,000	14,500	14,500	14,200	14,500	11,800	14,700	15,800	179,050	0.55	9%
N2-07-013G	5806104	D.R. Dorsey Properties	-	2.47	2.47	125	-	350	175	21	45	25	45	45	44	25	85	985	0.00	0%
N2-07-014P	4061607	Barking Oaks	-	0.62	0.62	5,870	5,680	5,460	5,980	5,230	5,680	5,890	6,218	5,860	5,480	5,980	6,180	69,508	0.21	34%
N2-08-005G	4061511	Lone Star Paving	-	1.07	1.07	52	86	3,085	4,056	5,034	1,073	257	224	95	40	114	48	14,164	0.04	4%
N2-08-007G	4061512	Trio Investments	-	0.18	0.18	600	600	400	200	100	200	100	100	200	100	100	100	2,800	0.01	5%
N2-10-007P	4061715	Goode Towing	-	0.05	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-14-001G	5806806	Mikeska	-	100.00	100.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%
N2-16-001P	4061410	Strike 3 Bail Bonds	-	0.12	0.12	360	240	320	320	300	310	410	420	460	415	360	320	4,235	0.01	11%
N2-20-006G	4061711	Reddylee LLC	-	9.97	9.97	-	-	-	22,670	3,710	42,110	24,480	58,070	111,280	73,470	40,060	77,660	453,510	1.39	14%
	<b>#</b>				I				· · ·	,	•	· · ·	· · ·	<i>·</i> ,	· .		· · · ·	· ·	. <u> </u>	

Totals:	271.80	312.73	584.53	2,063,348	1,378,608	2,164,161	3,261,256	892,620	9,576,191	2,695,148	9,016,955	8,947,245	1,926,207	1,309,665	2,032,807	45,264,211	138.91	24%





# **CUWCD Exempt Well Use Summary**

Aquifer	Total Active Registered Exempt Wells <sup>3</sup>	Registered	Estimated Domestic Use Gallons/Dav <sup>1,2</sup>	Estimated Domestic Use Ac- ft/Year <sup>1,2</sup>	Registered Stock	Estimated Stock	Estimated Stock	Total Estimated	Total Estimated Exempt Well Use	MAG Reserved
Glen Rose (Upper Trinity)	501	412	120,535	135	89	76.896	86	197,431	221	Exmpt
Hensell (Middle Trinity)	944	886	410.132	459	58	50.112	56	460.244	516	Well Use
Hosston (Lower Trinity)	149	138	40,373	45	11	9,504	11	49,877	56	
Trinity (Total) <sup>6</sup>	1.594	1.436	571.040	640	158	136.512	153	707.552	793	1.419
Edwards BFZ	833	704	205,962	231	129	111,456	125	317,418	356	825
Edwards Equivalent	489	390	114,098	128	99	85,536	96	199,634	224	
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	225	141	41,251	46	84	72,576	81	113,827	128	
Ozan	162	114	33,352	37	48	41,472	46	74,824	84	
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	592	379	110,880	124	213	184,032	206	294,912	330	
Other <sup>5</sup>	1,586	1,097	320,938	359	489	422,496	473	743,434	833	
CUWCD Total Active	4,013	3,237	1,097,941	1,230	776	670,464	751	1,768,405	1,981	

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/household (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<sup>2</sup> warm season turfgrass requires 38,855gal/yr/lawn or 106gal/day/lawn; "Ranchette" Avg. lawn size is 13,042ft<sup>2</sup>, 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; 490ac-ft/yr or an 89% increase in Middle Trinity exempt well use from the 2018 estimate of 258ac-ft/yr.

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= 846 gal/day/stock well, 747ac-ft/yr or a 34% increase in annual stock use from the 2018 estimate of 556ac-ft/yr.

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 CUWCD.



٨	<u>DFC Analys</u> (2000-I 1odeled Availa	<u>is Over Time</u> Present) <sup>ble Groundwater</sup>		<u>HEUP ar</u> Modeled	n <mark>d OP Permi</mark> Relative to the d Available Gro	<u>t Analysis</u> e undwater	2021 YTD Prod. Jan - Dec 1751.57 Ac-ft 69.62%	Pending A	Applications	<u>Exempt</u>	Well Reserv	vations
	DFC Adopted * Minimum Spring Flow	Status of DFC ** Current / Low	MAG *** Ac-ft	HEUP Ac-ft	IP OP To t Ac-ft Ac		2020 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 <sub>Ac-ft</sub>
Edwards (BFZ) Aquifer	100 Ac-ft per month or 1.68 cfs	<b>1478.08 Ac-ft</b> 12/1/2021 vs <b>220 Ac-ft</b> 08/20/2014	6469	2209.7	305.91	2515.61	2,189.47 Ac-ft 87.13%	3128.39	500.00	825	356	469

\*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.

#### 7KX Investments N2-19-005P (500 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 November  $26^{th}$  November  $30^{th}$  was 24.84 CFS = 1478.08 ac-ft/month
- 5 day average for November  $2^{nd}$  November  $6^{th}$  was 114.1 CFS = 6789.43 ac-ft/month

### Trinity Aquifer Status Report – December 2021

<u>D</u> M	FC Analysis Ove (2000-Preser Iodeled Available Grou	e <u>r Time</u> nt) Indwater	<u>HEUP an</u> Relative	to the Model Groundwate	<b>nit Analysis</b> ed Available er	<u>202.</u> <u>Tota</u> Jan 1705. 35.	<u>1 YTD</u>   Prod. - Dec .6 Ac-ft 95%	<u>Per</u> Applie	nding cations	<u>Exemp</u> t	t Well Rese	ervations
<b>Trinity</b> 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)	2020 YTD Prod. (by layer)	2021 YTD Prod. (by layer)	Available for Permitting Ac-ft (by layer)	Pending Applications Ac-ft (by layer)	Exempt Well Reserve Ac-ft (by layer)	2020 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)	- <b>1.38 ft/yr</b> -83 ft/60 yrs	974	61.9	72.14	134.04	25.85	18.70	146.96	0	693	194	499
Hensell (middle)	<b>-2.28 ft/yr</b> -137 ft/60 yrs	1099	259.3	211.98	471.28	93.69	67.37	79.72	0	548	524	24
Hosston (lower)	<b>-5.50 ft/yr</b> -330 ft/60 yrs	7193	1181.4	2957.62	4139.02	1119.97	1619.53	2875.98	0	178	53	125
Total		9266	1502.6	3241.74	4744.34	1239.50 (27.45%)	1705.6 (35.95%)	3102.66	0	1419	771	648

\*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



# **Clearwater Source**

### **Clearwater Underground Water Conservation District**

www.cuwcd.org

2021 Annual Newsletter

October 2021

Volume 17, Issue 1

#### **POPULATION GROWTH IS UPON US IN BELL COUNTY**



Clearwater Underground Water Conservation District has set the Bell County Water Symposium for November 17, 2021, at the Bell County Expo Center – Assembly Hall. The theme of this year's event is <u>"CHANGES IN</u> <u>TEXAS MEAN CHANGES IN BELL COUNTY."</u>

Due to COVID, the 2020 symposium was canceled, but we have restarted our annual event by continuing our efforts with our partners: Texas AgriLife Extension

Service in Bell County, the Bell County Engineers Office, and the Bell County Commissioners Court. We also have additional sponsors who have been very supportive.

Our first speaker of the morning will be Mr. Michael Irlbeck who is with EPCOR, an American Company with over 100 years of experience, working with municipalities and communities to develop and manage water and wastewater solutions. EPCOR is one of the largest water utility companies in the Southwest U.S. and is a recognized leader in Public-Private Partnership (P3's) space. Mr. Irlbeck is currently the Business Development Director for EPCOR USA Inc.

Following speakers will be Dr. Roel Lopez , Director with Texas A&M Natural Resource Institute and Dr. Robert Mace, Executive Director with Meadows Center for Water & the Environment at Texas State University. Their shared presentation is going to focus on the rural trends for land development and what that means for groundwater in Texas. Bell County is experiencing tremendous development of rural lands by fragmentation and subdivisions in an unparalleled fashion with developers depending on groundwater of which is <u>unsustainable</u>.

The Keynote of the Day will be delivered by our own County Judge, the Honorable David Blackburn who will discuss our need for understanding the growth that is here today and coming again tomorrow. Judge Blackburn is a key leader in Bell County who is helping all communities navigate the need to understand many issues related to our expanding population, our demand for new developments and the need to supply water in a sustainable fashion.

We will highlight our day with a special recognition of stakeholders and longtime leaders from across the county who have been significant in our forward progress since the drought of the 1950's and the most recent challenges of the past few years. The CUWCD Board of Directors look forward to another year of showcasing the importance of water to our robust economy.

Clearwater will present data per our most recent studies conducted and funded by the district to address many of the unknows concerning the depletion of artesian pressure in the Trinity Aquifer in the most southwestern portions of our County. This issue has been discussed in a collaborative effort with our Legislators and the County Judges and Commissioners of both Bell and Williamson Counties. Our concerns that the true pumping numbers of groundwater in Bell, Williamson and Northern Travis Counties are very relevant and this issue has seen the light of day because Clearwater has funded the necessary science ourselves to see what the regional pumping of groundwater is. Yes, the Counties to the south use more than **42,000-acre feet** of groundwater per year from the Edwards BFZ and Trinity aquifers collectively.

#### **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)



Figure 1. Travis and Williamson counties estimated groundwater pumping from the Edwards BFZ, Trinity and other aquifers.

The Drawdown Analysis of the Middle and Lower Trinity Aquifers in Bell, Travis and Williamson Counties validates that extreme declines continue at nearly 10 feet per year and if the trend continues pumps will have to be lowered in wells with water levels reaching the top of the aquifer in less than 30 years in some of the higher developments in the areas to the west of I35. These declines are illustrated in monitoring wells shown on the map prepared in 2019 in figure 2 below. In northwestern Williamson County, the Middle Trinity Aquifer water levels are near the top of the aquifer. Landowners in this area have reported difficulties accessing groundwater from the Middle Trinity. It is likely that many well owners will soon, if they do not already, have pumps set near the bottom of their wells and will have to adjust to limited groundwater availability or find alternative water supplies. Conditions in the Lower Trinity are better than in the Middle Trinity, but is a much more expensive alternative that may not exist in some areas due to the unknown structure and challenges to drilling. A robust Risk Assessment is being conducted is be evaluated by the (continued on page 2)



Figure 2. Middle Trinity Aquifer water level declines since 2006.

#### **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.

#### **CLEARWATER SOURCE / VOL 17, ISSUE 1**

### TEXAS 4-H WATER AMBASSADORS MAKE A Splash in Bell County and Beyond

With the continued financial and moral support of the Texas Water Industry and Texas A&M AgriLife Extension, the 4-H Water Ambassadors Program continues to push forward with the goal of developing the next generation of water leaders equipped with an appreciation for the complexities of water management.

This year marks the fifth year of the program where approximately 130 high school youth from across Texas have participated. Currently, there are sixty-two 4-H Water Ambassadors throughout the state, six of whom represent Bell County: Sarah Wood, Emma Canales, John Gauntt, Jane Gauntt, Jasmina Karim and Johangir Karim. Luke Read, a recent high school graduate from Bell County served three years in the program and is now pursuing a Civil Engineering degree at Texas A&M University. The 4-H Water Ambassadors Program combines advanced knowledge of water issues with leadership and citizenship development.

Whitney Ingram, Bell County Extension Agent, is very supportive of the program and engaged with the water ambassadors as she helps facilitate ambassador involvement in local events such as those provided by Clearwater. In the past year, state water ambassadors have reported more than 2,600 hours of education and service.

Sarah Wood is a high school senior now serving her third year as 4-H Water Ambassador. This summer, Sarah collaborated with Mary Rush Briggs Library in Morgan's Point Resort to plan a summer water program called "Is Water Wet?" for pre-K through fifth graders as part of their annual reading program. Sarah noted that "the program was a success due in large part to Clearwater Underground Water Conservation District staff and General Manager, Dirk Aaron, who supported the event with handouts and great tools such as the EnviroScape watershed model, rainfall simulator, and their fabulous water trailer".

On behalf of all the water ambassadors, it is my honor to thank Clearwater board members and staff for their continued support and encouragement of these future water leaders.

> David Smith, Extension Program Specialist II, Texas A&M AgriLife Extension, College Station



PAGE 2



Water ambassadors with CUWCD General Manager, Dirk Aaron at the Morgan's Point water program.



Sarah Wood, water ambassador, teaching young scholars at the Morgan's Point water program.

### Bell County Adaptive Management Coalition Continues

Natural Resources Solutions LLC (NRS) was contracted by the Bell County Adaptive Management Coalition (Coalition) in May 2020 for efforts pertaining to regulatory and supporting processes for the Salado salamander.

In response to U.S. Fish and Wildlife Service's (USFWS) proposed designation of critical habitat, NRS coordinated and developed public comments highlighting successful endeavors undertaken by the Coalition in Bell County that have aided in the protection of the species and its habitat. NRS was successful in its recommendation to remove three critical habitat units that were under an existing conservation easement on Solana Ranch. In the final critical habitat designation, USFWS removed 204 acres (Solana Ranch), which reduced the total critical habitat acreage in Bell County to 583 acres.

NRS also engaged with USFWS to provide technical information and data to inform the Species Status Assessment (SSA) currently being developed by USFWS. In collaboration with the Coalition, NRS conducted a literature review and developed a matrix of the species' ecology and life history (SSA Stage 1); assessed the current condition of the species, its habitat, and impacts (SSA Stage 2); and is currently projecting the species' response to future environmental conditions and conservation efforts (SSA Stage 3). Additional calls will be scheduled, and packages of information will be shared with USFWS.

Madelyn Todd, Project Manager/Policy Analyst, Natural Resource Solutions LLC

#### (continued from page 1)

district and landowners before we can continue expending resources before drilling wells for rural development. The Water Symposium will have a panel of experts to discuss the science of understanding the limited sustainability of groundwater during these challenging times.

This year's annual newsletter has several repeat articles to realign our thoughts back to water and its limited amounts as we have all been somewhat distracted these past two years. But Water is the issue when it comes to our robust economy.

Just two years ago our Board President, Leland Gersbach stated that

Clearwater is a leader in fostered local collaboration and he opened the 2019 Water Symposium by focusing on the biggest issue in our region and that is that "<u>Water will be what moves us forward or holds us back.</u>" Well, this issue is still upon us and local landowners who depend on groundwater should be mindful of the need to understand our limited resource here in Central Texas.

> Dirk Aaron, General Manager Clearwater UWCD

## 20th Annual Bell County Water Symposium "Changes in Texas Mean Changes in Bell County"

November 17, 2021 8:00 A.M. --- 3:00P.M. Bell County Expo Center - Assembly Hall \*\*This event is free but requires RSVP by November 12th\*\*

### **Program at a Glance**

#### 8:00 a.m. - Registration

#### Status of Water in Texas

Mr. Michael Irlbeck, Business Development Director, EPCOR USA Inc.

#### Rural Land Trends and What They Mean for Groundwater

Dr. Roel Lopez, Director, Texas A&M Natural Resource Institute Dr. Robert Mace, Executive Director, Meadows Center for Water & the Environment–Texas State University

#### Already but Not Yet Understanding Growth in Bell County

Honorable Judge David Blackburn

#### BRA Update on Surface Water Resources in Brazos Planning Region G

Mr. David Collinsworth, General Manager/CEO, Brazos River Authority Mr. Brad Burnett, Lower/Central Basin Region Manager, Brazos River Authority

#### State of Groundwater in Bell County

*Mr. Leland Gersbach*, Board President, Clearwater UWCD *Mr. Dirk Aaron*, General Manager, Clearwater UWCD

#### New Understand of the Middle Trinity in Bell and Williamson Counties

#### Expert Panel

Mr. Mike Keester, Professional Geoscientist, LRE Water
Dr. Joe Yelderman, Chair of Geosciences, Baylor University,
Mr. Vince Clause, Professional Hydrologist, Allan R. Standen LLC,
Mrs. Michelle Sutherland, Groundwater Resource Consulting

#### ASR, Is it a Viable Strategy in Bell County

Dr. Neil Deeds, Vice President, Professional Engineer, INTERA Dr. Steve Young, Professional Engineer/Geoscientist, INTERA

#### Status of the Salado Salamander and Critical Habitat

*Mr.* Steve Manning, President & CEO, Natural Resource Solutions *Ms. Madelyn Todd*, Project Manager & Policy Analyst, Natural Resource Solutions





The Clearwater Underground Water Conservation District is Pleased to Announce the 20th Annual

# **Bell County Water Symposium**

"Changes in Texas Mean Changes in Bell County"

November 17, 2021 8:00 a.m. - 3:00 p.m.

**Location** 

# **Bell County Expo Center - Assembly Hall**

### 301 W Loop 121, Belton, TX

This event is open to the public free of charge

Please RSVP by November 12th

254-933-0120 tsmith@cuwcd.org

Clearwater Underground Water Conservation District would like to extend a special thank you to the sponsors of the 20th Annual Bell County Water Symposium.

Texas A&M

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**LRE**Water, llc

Stande

Over the past several years, the District has directed and participated in several studies of the groundwater conditions within and near Bell County. The District's technical consultants have been working to synthesize the information from these studies into a single reference with a focus on what the information means for management of the groundwater resources.

The results of research directed by Clearwater Underground Water Conservation District along with the reports of local well owners and drilling contractors has confirmed that the hydrogeologic conditions and groundwater availability of the Trinity Aquifer are distinctly different in the southwestern area of Bell County from other parts of the county. Over the last few years, the District has invested in more than a dozen projects to investigate the Trinity Aquifer structure, lithology, hydraulic properties, and water-level changes in the area. This year, the District is upholding its dedication to science-based aquifer management through a collaborative project between the District's consultants to develop a holistic understanding of the Trinity Aquifer in southwestern Bell, northeastern Burnet, and northwestern Williamson counties.

One goal of this project is to synthesize the research in which Clearwater UWCD has invested into a single report documenting the consensus understanding of the District's hydrogeologic experts. During this past year, the Clearwater UWCD consulting team developed answers to specific questions regarding the faulting and configuration of the aquifer units in southwestern Bell, northeastern Burnet, and northwestern Williamson counties to arrive at a shared understanding on how these affect groundwater flow through the aquifer.

One result of our work is the development of a science-based delineation of distinct hydrogeologic variations within and near Bell County. Moving forward, these results will help the District's Board of Directors define Management Areas within which groundwater resources can be effectively managed based on the area's specific aquifer conditions. The delineation of these areas may help property owners utilize their groundwater resources while also helping the District manage the resource so that remains available for future generations.



In 2014 the Clearwater UWCD began looking at their monitoring data data, the better the scier in a new way to ultimate visualize data Clearwater wanted a scientific tool Without accurate groundw

in a new way to ultimate visualize data Clearwater wanted a scientific tool to better understand how the monitoring data they were collecting correlated to the desired future conditions for the aquifers and to improve communication of the status of the managed aquifers.

What began as a spreadsheet tool has evolved into an interactive webbrowser based tool that provides a visual representation of measured water levels for the Upper, Middle, and Lower Trinity aquifers in Bell County.

Currently, the tool analyzes water-level data collected at District monitoring well locations in these aquifers to assess and visually represent the current groundwater conditions relative to the desired future conditions.

During the 2021 Texas Alliance of Groundwater Districts Groundwater Summit, the Texas Water Development Board's mantra succinctly summarized the reason why we collect and analyze aquifer data: "The better the



Drawdown Maps of the Middle Trinity Aquifer .

data, the better the science. The better the science, the better the policy". Without accurate groundwater data, we cannot begin to understand how our aquifers are doing. Without analysis of that data, we may fall into the trap of simply "shelving our data." Our decisions should be informed by the available science and backed up by our datasets. One of the main questions our analytical tools seek to answer is: Are we exceeding the Desired Future Conditions adopted by the District. To do so, the tool uses available water-level measurements to calculate an annual water-level decline rate for comparison to the adopted Desired Future Conditions. The approach provides a standardized, reproducible, and defensible means of assessing compliance with the District's Desired Future Conditions.

#### Micaela Pedrazas, Hydrogeologist LRE Water



Lower Trinity Aquifer 2021 Water Evaluation.





#### KNOWING WHERE YOUR AQUIFER Gets its Water Can Be Important

At the end of August, Chalk Ridge Falls Park near Belton was closed following an incident where a dog developed respiratory distress, possibly due to ingesting water containing cyanotoxins. Cyanotoxins are produced by blue-green algae that can grow to harmful levels in warm, stagnant, nutrient-rich water. Because this incident occurred at a park associated with Stillhouse Hollow Reservoir, one question that resulted from this incident was whether lake water could have influenced the presence of algal blooms at Chalk Ridge Falls Park. A first step in answering this question is determining if lake water is connected to water in the park.

Researchers at Baylor University in partnership with CUWCD recently completed a study to investigate groundwater-surface water interactions around Stillhouse Hollow Reservoir. Specifically, the team was interested in seeing if a suite of tracers (water chemistry, deuterium and oxygen-18 stable isotopes, and positive detection of zebra mussel eDNA) would indicate surface water (from the lake) in springs and wells near the reservoir. Results confirm the presence of surface water at sampled sites, indicating that the proportion of surface water varies and is highest during high-flow conditions when the lake level rises into the flood pool where it may be in direct contact with karsted limestone of the Edwards aquifer.

There is no evidence that blue-green algae can persist and be transported through the Edwards aquifer around Stillhouse Hollow Reservoir. However, this study documents the connection between groundwater and surface water in this area of Bell County and highlights the importance of further studies to protect natural resource quality.

Dr. Stephanie S. Wong, Baylor University Dr. Joe C. Yelderman, Jr., P.G., Chair of Geosciences, Baylor University

Spring flow at Spillway Creek in Chalk Ridge Falls Park increases dramatically in high-flow conditions when the lake level rises into the flood pool.



### DEVELOPING A CONCEPTUAL MODEL FOR GROUNDWATER Flow in Southwest Bell County

Over the last decade, landowners in Southwestern Bell County have observed local water level declines of over 100 feet in their wells. To address this public concern, Clearwater UWCD has invested in several studies aimed at understanding the Middle Trinity Hensell and Lower Trinity Hosston aquifer systems in this portion of the county. This has included the development and maintenance of the Clearwater 3D hydrostratigraphic model.

Earlier this year Allan R. Standen, LLC completed a substantial update to the 3D hydro-stratigraphic model where an emphasis was placed on the subsurface geology in this area. Key findings from this update included identifying the Middle Trinity, Cow Creek Limestone as a possible aquifer below the Middle Trinity Hensell in western-southwestern Bell County and the identification of probable subsurface fault offsets impacting groundwater flow within the Middle Trinity Aquifer.

During September 2020, the Clearwater UWCD contracted Allan R Standen, LLC to expand on these findings. This new research will include a detailed review of all available water well driller reports and geophysical logs in an expanded study area to evaluate to what extent the underlying geology is a factor for these water level declines. This research will be completed in late 2020 and is part of a collaborative effort between Clearwater UWCD consultants and Baylor Geologic Studies to better understand the aquifer systems in Southwestern Bell County.

> Vince Clause, Hydrogeologist Allan R. Standen, LLC



Draft conceptual model framework for the Middle Trinity Aquifer in SW Bell County with possible fault/structural controls and grouwndwater flow paths.

### Clearwater UWCD E-News

Campaign Preview HTML Source Plain-Text Email Details



#### Clearwater Publishes Annual Report:

The District is mandated to publish an annual report to our constituents and report what happens in all areas of the District's Groundwater Management Plan. To view the 2020 Annual Report, click <u>here</u>.

#### Texas Water Weekly

Want to know the Water conditions across Texas? The latest map for drought conditions as of April 27th shows improvement for the second consecutive week, the first time that's happened since the start of the year. With additional rainfall across much of the state since April 27th, we can expect additional improvements on next week's map. To view the latest drought map, click <u>here</u>.

#### Can Clearwater UWCD Curtall My Right to Groundwater During a Drought?

Talk on the street is that Clearwater will curtail private exempt well owners during drought conditions. The truth of the matter is that Clearwater cannot curtail exempt well owners for any reason. Clearwater currently has no authority to curtail during drought but is required to address drought conditions in a manner to help well owners know when it is in the best interest of property owners to curtail your precious resource.

Convenient truths are often simple falsehoods to discredit the efforts of others. Exempt well owners are privileged to produce up to 25,000 gallons/day from their exempt domestic well. So what is the key word in our drought management plans for Bell County's two key aquifer systems?

- Edwards BFZ Aquifer Voluntary Drought Plan means curtailment is purely voluntary. The water conservation goals and usage reduction measures assigned to each Edwards BFZ Aquifer drought stage are voluntary. The District encourages voluntary compliance during each drought stage as outlined in this plan. Such voluntary compliance will contribute to the achievement of the desired level of conservation and reduce the impact of drought conditions and restrictions.
- Trinity Aquifer Voluntary Drought Plan means curtailment is purely voluntary. The water conservation goals and usage reduction measures assigned to each Trinity Aquifer drought stage are voluntary. The District encourages voluntary compliance during each drought stage as outlined in this plan. Such voluntary compliance will contribute to the achievement of the desired level of conservation and reduce the impact of drought conditions and restrictions. However, nothing in this section excludes the District from exercising authority under District Rules regarding wasteful use of water.

View Report

#### Clearwater UWCD Financial Audit Has Been Accepted and Approved

The Board of Directors have continued to conduct themselves in accordance with the District's Bylaws and Chapter 36 Texas Water Code to conduct an annual financial audit required by the Texas Legislature. The board shall have an audit made of the financial conditions of the District. The District audit shall be performed according to the generally accepted government auditing standards adopted by the American Institute of Certified Public Accountants. Financial statements shall be prepared in accordance with generally accepted accounting principles as adopted by the American Institute of Certified Public Accountants. The annual audit and other District records must be open to inspection during regular business hours at the principal office of the District. To view the financial audit, click here.

#### Clearwater UWCD Bylaws:

The Clearwater Underground Water Conservation District ("District") was created by Resolution of the Commissioners Court of Bell County, Texas, pursuant to H.B. 3172, Chapter 524, Acts of the 71st Legislative (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 Legislative (2001 Session) and S.B. 1755, Chapter 84, Act of the 81st Legislative (2009 Session), and by applicable law including the provisions of Chapter 36 and 49 of the Texas Water Code. These bylaws are adopted to facilitate the conduct of the business of the District. In the event of any conflict between these Bylaws and applicable law, it is expressly recognized that such conflict is inadvertent and unintended, and the law shall govern. To view the District's Bylaws, click here.

CHECK OUT CUWCD WEBSITE HERE



lelephone Number: 254-933-0120 Fax Number:

254-033-8398

Houne

Monday – Friday 8:00 am to 5:00 pm Closed from 12:00 to 1:00 pm for lunch

Clearensier Underground Weiter Conservation District (CLM/CD) is a political subdivision of the State of Texas and underground water comeanation district created and operating under and by vitra of Adda XM, Section 58, of the Texas Constitution; Texas Weiter Code Chapter 32; the District available got, Ad of May 27, 1980, 7141 Lagislatum, Ragular Sassion, Chapter 534 (House Bill 2017), as amended by Act of April 25, 2001, 77th Lagislature, Ragular Sassion, Chapter 22 (Sanate Bill 404), Act of Net 7, 2006, 81 et Lagislature, Ragular Sassion, Chapter 64 (Sanate Bill 1755), and Act of Net 7, 2016, 81 et Lagislature, Ragular Sassion, Chapter 1180, Saction 2 (Sanate Bill 1755), and Act of Net 7, 2016, 16th Lagislature, Ragular Sassion, Chapter 1180, Saction 2 (Sanate Bill 1755), and Act of Net 7, 2016, 16th Lagislature, of Texas, and confirmed by oxians of Ball Coarly on August 21, 1980.

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This erral was sent to << Test Erral Address >> why did I get this? unsubscribe from this tel \_update subscription preferences Geerweter Underground Weter Conservation District - 700 Kennedy Court - 190. Box 1989 - Bellon, Texas 78513 - USA



### Quarterly Newsletter

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Policensing speakers will be Dr. Roel Lopor, Silector with Texas AMM Natural Resource Institute and Dr. Roel Lopor, Silector with Texas AMM Natural Resource Institute and Dr. Robert Mison, Esecutive Director with Neotime Detector International Statement of Texas Bible Deriversity. Their shared presentation is going to Rocas on the runsi teends for land development and what that means fur groundcater in Texas. Bell Dourly is experimenting thermendous development of sund tembs by Rogeneristics of goundwater of which Is accessibility of some Dourly Angle. Re thronosable David Ubachbarr, who will development for and texative Angle Bach-ternation and Ubachbarr, who will development for and terminating the gooundwater of which Is accessibility or one Rounty Angle. Re thronosable David Ubachbarr, who will development to transmiss. Angle Bach-tern is a large leader in Bad Dourly wire in Prepting at communities nai-gate the need to understand more issues related to aut expending prop-tions, our development for new developments and the need to subcharder in a sustainable fashion. Mis with highlight our day with a special recognition of stakeheliders and tergitme leader in Bad.

and langtime leaders from across the county who have been significant in our flavant progress since the drought of the 2050's and the most event shakergies of the part flav years. The CIVED Board al Directors look forward to another year of showcosing the importance of water to our rabuit economy. Ceorwater will present data per sur mesi recent studies conducted

Desirvation will present data per sur mest recent studies conducted and functed by the district to address many of the unknows concentring, the dependion of arterian pressure in the Twink Aquiter in the mest work waters posteriors of our Caurity. This issue has been discussed in a cel-iaborative offset with air Legislatans and the County Judges and Conventi-sioness of both tell and Williamson Counties, Our concerns that the two semiging converses of groundwater in Both, Williamson and Northern Trasis Counties are new relevant and this leave has seen the light if day be cause. Convention 10 and the two executions to the what the regional purpting of groundwater in Set. The Counties to the work use were trave 12 address of an exceptions. south use more than 42,000 acre. Set of poundwater per year from the Edwards BF2 and Trinite aquifers callectively.

paters is some of the higher developments in the annual to the need of 13%. These decimes are illustrated in monitaring wells shown on the map proposed in 2009 in figure 2 belas. In northwestern vitiliaanson Dourty, the Model Trin-ly Applier value levels, are near the top of the applier. Londewnees in this area have reperted effoculties accounting groundwater from the Model Trinity, it is likely that many well conners will soon, if they do not already, have purple set near the totars of their wells and will have to adjust to install groundwater report in the Model Trinity, but match and will have to adjust to install groundwater main the totars of their wells and will have to adjust to install groundwater them in the Models Trinity, but is a much more expensive attemative that before than in the Models Trinity, but is a much more expensive attemative that have not well in some parametia at all have to instance without an other wells wells on the average the source attemative that they not well in some parametia and all have to adjust the totar of the totar of the totar of the source attemative that the parameters well in some parameters attemative that the parameters attemation and the first source attemative that the source of the source applies attemative that the source attemption attemption and the source attemption and the source of the source of the source of the source attemption attemption attemption attemption to the source of the source may not exist in same areas due to the unknown structure and challenges to chilling. A rebust Risk Assessment is being conducted is be evaluated by the



BOARD OF DIRECTORS SSIGN STATEMENT

View Report

#### CLEARWATER SOURCE / VOL 17, ISSUE 1

#### TEXAS 4-H WATER AMBASSADORS MAKE A Splash in Bell County and Beyond

With the continued financial and morel support of the Texas Water Industry and Texas A&M AgriL.Re Edension, the 4-H Motor Ambassadors Program continues to push forward with the goal of developing the next generation of water leaders exalpsed with an appreciation for the complexities of water reanagement.

This year monks the fifth year of the program where approximately 330 high school yeuth-from acress Texas have participated. Currently, there are sixty-two 4-H Water Antoassadors throughout the state, six of whom represent Bell County: Saxsh Wood, Emmo Consiles, John Gauntt, Jane Gauntt, Joannina Kanim and Johongir Harim. Luke Read, a recent high school gookuate from Bell County served three years in the program and is new pursuing a Givil Engineering degree at Texas. ABM University. The 4-H Water Antoissadors Program contributes adumced knowledge of water Issues with leadership and citizenship development.

Whitney Ingram, Bell County Extension Agent, is very supportive of the program and engaged with the water and/assadors as she helps facilitate antibassador involvement in local events such as those provided by Clearwater. In the past year, state water ambassadars have reported more than 2,000 hours of education and service.

Serah Wood is a high school senior now sening her third year as 4-H Weter Ambasaudur. This summer, Sanah collaborated with Mary Rush Driggs Library in Weter Wet?" for pre-H through fifth graders as part of their annual needing program. Sanah noted that "the program was a success due in large part to Clearwater Underground Water Consorvation District staff and General Manager, Dirk Aaron, who supported the event with Intradouts and great taols such as the EnviroScape water she model, rainfall simulater, and their Tatudous water trader".

On behalf of all the water ambassadors, it is my bonor to thank. Cleanvater board members and staff for their continued support and encouragement of these future vater leaders.

Devid Smith, Extension Program Specialist II, Texas A&M AgriLife Extension, College Station



Water ambassadors with DUVICD General Vanager. Dirk Aaron at the Morgan's Point water program.



Sals h Woold, water ambassader, teaching young schelars at the Morgan's Point water program.

#### BELL COUNTY ADAPTIVE MANAGEMENT COALITION CONTINUES

Noturol Resources Solutions LLC INRSI was centracted to the Bolt Gourie) Adaptive Management Coartion (Coalition) in May 2020 for efforts pertaining to regulatory and supporting processes for the Salado subarrander.

In response to U.S. Fish and Wildlife Service's (USPWS) proposed designation of critical habits, NPS coordinated and devicend public comments highlighting successful endeovers undertaken by the Ecal tion in Bell County that have added in the protection of the species and its hobitst, NPS was successful in its sociarementation to remove three critical habitst units that were under an existing conservation ensemant, on Solaria (Ranch, In the final entities) habitat designation, USPSt inmoved 204 acres (Solaria Ranch), which reduced the tatal critical habitat tata company (Solaria Ranch), which reduced the tatal critical habitat acressing in Bell County to SKI acres.

A RS also engaged with USPVIS to provide technical information and data to inform the Species Status Assessment (SSA) currently teing developed by USPVIS. Is collaboration with the Cosilitan, MRS concluded a interature review and developed a matrix of the species' ecology and the halos, SSA Stage 11, assessed the current, condition of the species, its halblat, and impacts (SSA Stage 1), assessed the current condition of the species' ecology and the halos, and impacts (SSA Stage 1), and interact of the species' ecology and the halos, and impacts (SSA Stage 1), and interact of the species' ecology and the halos, and impacts (SSA Stage 1), and interact of the species' ecology and the species of status and write the species of information will be shared with USPVIS.

Madelyn Tadif, Project Mesoger, Palicy Realyst, Natural Resource Saturions LLC

#### Continued Romanger 3.

childred and landowness before we can centrise expending resources before chiling wells for rural development. The lititar Sprocekum vill have a pane of expents to discuss the science of understanding the limited sustainability of groundwater during these shallenging trees.

This poor's annual newsletter has several repeat at their to realign our thoughts back to easter and its limited amounts as we have all been samewhat distracted these past two poers. But there is the issue when it comes to our inbust economy.

Just two years ago our Based President, Leland Gerabach stated that

Convestor is a losser in fostered local calaboration and he opened the 2010 Violar Sprapositive to fostularize an the laggest losser in our region and that is that "Mater will be what receive an forward or holds as back." Well, this losse is not upon us and local londerstand our lender any goundwater should be mindful of the meet to understand our lender who depend on goundwater should be mindful of the need to understand our lender source leves in Central Totals.

> Disk Aaron, Eanwall Monoger Cleanwater UWCD

LEARWATER SOURCE / VOL. 16, ISSUE 1

### 20th Annual Bell County Water Symposium "Changes in Texas Mean Changes in Bell County"

November 17, 2021 8:00 A.M. --- 3:00P.M. Bell County Expo Center - Assembly Hall ""This event is free hat requires RSVP by November 12th"

#### Program at a Glance

#### 8:00 a.m. - Registration

Status of Water in Texas Mr. Michael Mibeck, Business Desekprinant Director, EPCOR USA Inc.

#### Rural Land Trends and What They Mean for Groundwater

Dr. Roel Lopez, Director, Texas A&M Natural Resource Institute Dr. Robert Made, Executive Director, Meadows Center for Water & the Environment-Texas State University

#### Already but Not Yet Understanding Growth in Bell County Honorable Judge David Blockburn

#### BRA Update on Surface Water Resources in Brazos Planning Region G

Mr. David Collinsworth, General Monager/CEO, Brazos Piver Authority

MY. Brad Burrett, Lower/Central Basin Region Manager, Brazos River Authority

#### State of Groundwater in Bell County

Mr. Leland Gersbach, Board President, Clearwater UWCD

Mr. Dirk Aavon, General Manager, Clearwater UWCD

#### New Understand of the Middle Trinky in Bell and Williamson Counties

Export Plend

Mr. Mike Keester, Professional Geoscientist, LRE Water Dr. Are Veidensan, Chair of Geosciences, Baylor University, Mr. Whoe Clause, Professional Hydrologist, Allan R. Standen LLC, Mrs. Michelle Suthenland, Groundwater Resource Consulting

#### ASR, Is it a Viable Strategy in Bell County

Dr. Neil Deeds, Vice President, Professional Engineer, INTERA Dr. Sneve Young, Protessional Engineer/Geoscientist, INTERA

#### Status of the Salado Salamender and Critical Habitat.

MY, Steve Manning, President & DED, Natural Resource Solutions

Ms. Madelyn Toold, Project Manager & Policy Analyst, Natural Resource Solutions



The Clearnoster Underground Water Conservation Dutries in Pleased to Announce the 20th Annual

### Bell County Water Symposium

"Changes in Texas Mean Changes in Bell County"

November 17, 2021 8:00 a.m. - 3:00 p.m.

Location

Bell County Expo Center - Assembly Hall

301 W Loop 121, Belton, TX

This event is upon to the public free of charge

Please RSVP by November 12th

254-933-0120 tweith@curved.org

Clearwater Underground Water Conservation District would like to extend a special thank you to the sponsors of the 20th Annual Bell County Water Symposium.

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#### CLEARWATER SOURCE I VOL 17, ISSUE 1

SCIENTIFIC ADVANCEMENT OF THE DISTRICT'S GROUNDWATER MANAGEMENT

Over the pest several years, the District has checked and participated in several studies of the groundwater conditions within and near Bell County. The District's technical consultants have been working to synthesize the information from these studies into a single reference with a focus an what the information means for management of the groundwater tosources.

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Mile Keester, Serior Project Mecages (Hydrogeologist



#### ANALYTICAL TOOL FOR EVALUATING AQUIFER STATUS

In 2014 the Clearwatar UNICD begin looking at their monitoring data in a new way to ultimate visualize that. Clearwater vended a scientific tool to better understand how the manifolding data they were callesting same lated to the desired fature conditions for the equilities and to improve communication of the starup of the restringed equilities.

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#### Misaola Pedrazas, Hychogeologist, LIE Water

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Lowie Trinip Aquiles 2021 Nator Erobotion

Character.

PAGE 6

### Knowing Where Your Aquifer Gets its Water Can Be Important

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However, this study do rits the canalogical between groundwater and su



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To view the original 2021 CUWCD Newsletter click here.





### CUWCD 2021 Education and Outreach Events

Date	People	Event Information	Presentation	Booth
3/5/21	60	Miller Heights Elementary Virtual Career Day	Х	
4/14/21	18	Bell County Master Gardener's Association	х	
4/16/21	57	Farm & Ranch Educational Services Workshop	Х	
4/19/21	35	Temple Rotary Club	Х	
4/28/21	50	Temple Lion's Club	Х	
7/15/21	18	Leadership Central Texas	Х	
7/24/21	17	Morgan's Point Library Summer Program	Х	Х
7/31/21	17	Morgan's Point Library Summer Program	Х	Х
8/14/21	15	Morgan's Point Library Summer Program	Х	Х
10/26/21	26	Junior Master Gardener's at St. Mary's Catholic School	Х	Х
10/28/21	66	Bell County Conservation Expo		х
11/17/21	181	Bell County Water Symposium	Х	Х
Total reached	560			



### Results of Groundwater Samples in CUWCD Lab

Test Date	District Well #	Latitude	Longitude	Elevation	Depth (ft)	Aquifer <sup>2</sup>	Coliform Bacteria <sup>3</sup>	Ecoli	Conductiv ity (µs/cm)	Total Dissolved Solids (mg/l.)	Salinity (mg/L)	рН	Alkalinity (mg/L)	Hardness (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphate (mg/L)	Sulfate <sup>4</sup> (mg/L)	Fluoride <sup>4</sup> (mg/L)
FY21										(9, =)						1	1		
10/2/2020	E-10-051P	30.941054	-97.607789	726.4	870	Middle Trinity	Absent	Absent	910	447		8.21	340	380	0	1.31	0.51	120	0.36
10/6/2020	E-20-107P	30.920380	-97.681110	821.57	800	Middle Trinity	Not Tested	Not Tested	1067	527		8.87	240	120	0.005	1.5	0.12	209	1.65
10/6/2020	E-20-110G	30.972852	-97.725013	786.71	700	Lower Trinity	Not Tested	Not Tested	2330	1184		8.65	380	160	0.001	2.2	0.14	448	8.7
10/7/2020	E-11-064P	31.262513	-97.483231	716.67	905	Middle Trinity	Not Tested	Not Tested	2690	1378		8.72	360	120	0.002	0.6	0.09	687	4.5
10/7/2020	E-19-226P	30.973250	-97.606720	816.29	115	Edwards (BFZ)	Absent	Absent	643	313		7.79	320	320	0.003	2.2	0.12	16	0.5
10/27/2020	N2-03-001G	31.075128	-97.343367	674.79	2323	Lower Trinity	Not Tested	Not Tested	2002	1006		8.86	360	40	0.006	0.1	0.47	291	2.17
10/27/2020	N2-03-001G	31.075128	-97.343367	674.79	2323	Lower Trinity	Not Tested	Not Tested	2102	1060		8.88	360	40	0.002	1.5	0.03	284	2.18
11/3/2020	E-20-092P	30.985546	-97.489824	605.62	195	Edwards (BFZ)	Not Tested	Not Tested	1905	965		8.41	400	260	0.002	0.079	0.38	315	5.35
11/5/2020	E-20-103P	30.947870	-97.705406	794.54	710	Lower Trinity	Not Tested	Not Tested	2320	1178		8.76	440	40	0.003	0.078	0.32	23	7.95
11/9/2020	E-02-3271G	30.984305	-97.828847	738.95	257	Upper Trinity	Present	Absent	1318	640		8.77	360	140	0.008	0	0.01	153	3.6
11/9/2020	E-20-090P	30.933945	-97.824642	965.5	570	Middle Trinity	Not Tested	Not Tested	1127	556		8.75	340	80	0.037	0	0.14	137	1.9
11/12/2020	E-20-115G	30.929650	-97.827574	953.28	490	Middle Trinity	Not Tested	Not Tested	1509	751		8.15	320	260	0	0.822	0.62	312	5.45
11/16/2020	E-20-113P	30.948679	-97.308195	458.5	56	Alluvium	Not Tested	Not Tested	1189	587		7.72	340	360	0.068	3.33	0.43	163	0
11/19/2020	E-20-096P	31.074768	-97.579715	690.75	770	Middle Trinity	Not Tested	Not Tested	5030	2640		8.19	480	360	0.032	1.4	0.12	1234	7.2
11/19/2020	N2-19-003P	31.160187	-97.472232	648.73	900	Middle Trinity	Not Tested	Not Tested	3040	1557		8.37	340	200	0.004	0.9	0.1	746	4.45
12/1/2020	E-20-093P	30.974156	-97.634468	874.06	860	Middle Trinity	Not Tested	Not Tested	1084	536		9.37	320	60	0.003	0.086	0.48	122	1.48
12/3/2020	E-20-099P	30.981270	-97.613780	809.06	840	Middle Trinity	Not Tested	Not Tested	1230	610		8.91	320	60	0	4	0.35	128	1.96
12/4/2020	E-20-117G	30.878980	-97.604793	774.65	75	Edwards (BFZ)	Not Tested	Not Tested	301	149		9.11	120	120	0.001	0.8	0.07	9	0.11
12/4/2020	N2-19-002P	30.883734	-97.604886	756.09	910	Middle Trinity	Not Tested	Not Tested	1263	627		8.65	280	100	0.001	0.3	0.27	193	0.65
12/10/2020	N2-20-002P	30.930110	-97.737620	814.9	710	Lower Trinity	Not Tested	Not Tested	2107	1066		8.46	440	80	0.003	4.9	0.58	25	5
12/15/2020	N2-20-002P	30.930110	-97.737620	814.9	710	Lower Trinity	Not Tested	Not Tested	2112	1068		8.57	400	100	0.001	1.8	0.17	52	4.5
12/17/2020	E-20-008P	30.939700	-97.599830	702.63	860	Middle Trinity	Not Tested	Not Tested	1628	816		8.88	360	80	0.001	2.4	0.33	251	3
12/17/2020	E-20-114P	30.936540	-97.584560	676.98	870	Middle Trinity	Not Tested	Not Tested	1421	709		8.95	340	20	0.003	0	0.23	187	2.5
12/21/2020	E-03-449P	30.993922	-97.494590	577.95	960	Middle Trinity	Absent	Absent	1763	883		8.73	340	100	0	0.186	0.36	290	3.2
1/7/2021	E-02-1993P	30.925304	-97.607174	739.96	860	Middle Trinity	Absent	Absent	3030	1693		8.27	400	420	0.002	2.2	0.11	808	4
1/7/2021	N2-14-004P	30.993280	-97.542454	738.71	1243	Lower Trinity	Not Tested	Not Tested	4070	2119		8.6	400	80	0.001	0.6	0.36	366	3.5
1/7/2021	N2-14-005P	30.981216	-97.330024	458.52	2850	Lower Trinity	Not Tested	Not Tested	2079	1049		8.71	340	80	0.004	0.5	0.38	269	2
1/7/2021	N2-14-004P	30.993280	-97.542454	738.71	1243	Lower Trinity	Not Tested	Not Tested	4040	2090		8.45	380	100	0	0.3	0.34	380	3
1/7/2021	N2-14-005P	30.981216	-97.330024	458.52	2850	Lower Trinity	Not Tested	Not Tested	2103	1067		8.89	360	80	0.006	0	0.37	263	2
1/14/2021	E-20-097P	30.960362	-97.493983	546.13	140	Edwards (BFZ)	Not Tested	Not Tested	1696	850		8.7	340	120	0.006	0.6	0.07	235	5.5
1/14/2021	E-20-100P	30.858452	-97.552389	833.3	600	Edwards (BFZ)	Not Tested	Not Tested	958	471		8.49	300	160	0.091	0	0.36	126	
1/28/2021	E-21-009P	30.968340	-97.601770	784.75	872	Middle Trinity	Not Tested	Not Tested	1288	644		9.6	300	60	0	1.4	0.32	177	2.2
1/28/2021	N2-19-001P	30.883614	-97.603827	757.22	910	Middle Trinity	Not Tested	Not Tested	1068	527		8.97	320	80	0	1.2	0.01	124	2.3
2/2/2021	E-18-038P	30.967790	-97.533235	625.72	140	Edwards (BFZ)	Not Tested	Not Tested	821	402		7.79	320	420	0.005	8.61	0.39	28	0.81
2/4/2021	E-20-119P	31.019941	-97.430422	460.16	300	Edwards (BFZ)	Not Tested	Not Tested	6020	3180		8.19	360	320	0.001	4.3	0.49	1622	8.4
2/5/2021	E-02-2580G	30.963791	-97.523048	591.87	138	Edwards (BFZ)	Present	Absent	799	390		8.31	320	380	0.005	0	0.36	31	2.8
2/8/2021	E-02-1968G	31.045328	-97.560960	806.1	126	Edwards Equivalent	Present	Absent	/04	344		8.05	300	320	0.048	5.54	0.86	14	0.55
2/8/2021	E-20-122P	30.971278	-97.603006	781.43	862	Middle Trinity	Not Tested	Not Tested	1167	575		8.82	320	100	0.001	4.6	0.15	127	1.6
2/9/2021	E-20-123P	30.880620	-97.609890	743.34	892	Middle Trinity	Not Tested	Not Tested	1034	509		8.77	320	100	0	0.5	0.07	125	2
2/9/2021	E-20-124P	30.881860	-97.609570	742.91	892	Middle Trinity	Not Tested	Not Tested	1101	543		8.4	280	80	0.002	2.7	0.34	131	2
2/9/2021	E-21-010P	30.972260	-97.614710	845.43	872		Not Tested	Not Tested	1267	626		9.08	340	80	0.001	2.1	0.23	174	2
2/23/2021	E-02-024G	30.976492	-97.302030	4/3.2/	26	Alluvium	Not Tested	Not Tested	740	359		8.57	300	300	0.003	5.76	0.3	26	0.58
3/4/2021	E-15-059P	30.914851	-97.609598	665.24	800	Middle Trinity	Not Tested	Not Tested	5070	2670		8.2	480	380	0.076	1.46	0.11	1288	6.9
3/3/2021	E-20-109P	30.924672	-97.796753	811.85	510		Not rested	Not rested	1632	813	<u>                                     </u>	8.81	360	40	0.005	1	0	82	3.5
3/24/2021	E-21-012P	30.936210	-97.600650	711.83	870	Middle Trinity	Not Tested	Not Tested	1772	892		8.83	380	100	0	0.142	0.2	270	2.8
4/2/2021	E-21-029G	31.101965	-97.452331	5/0	150				639	311	┥──┤	8.07	240	300	0.007	5012	0.08	22	0.26
4/0/2021		30.933056	-97.000402	748.17	000				5420	2800	┥ ┥	0.1	48U	400	0.002	0.7	0.1	0001	0
4/0/2021	E-19-155P	30.900896	-97.044484	044.28 740.47	000			Not Tested	1435 5400	2060	┥──┤	0.79	340	100	0.000	1.4	0.21	230	2.5
4/0/2021		30.933056	-97.000402	740.17	000			Not Tested	542U 2200	2800	┥──┤	0.1	48U	400	0.002	0.7	0.1	034	
4/0/2021		30.933050	-97.000402	/40.1/ 202.20	000		Not Tested	Not Tested	3390	1/4/	<b>├</b> ───┤	0.03	300	24U 400	0.178	1.1		924	4
4/0/2021	E-02-029G	31.015021	-97.889413	012.39	232				2930	1001	┥──┤	0.11	280	480	0.007	0	0.05	391	2.0
4/0/2021	E-21-003P	31.030122	-97.905307	943.59	420	opper i rinity	INUT LESTED	NOT LESTED	3580	0661		8.4	320	300	0.127	0.1	0.32	639	3.3

4/0/0004		04.000000	07.004.000	0.40.07	4.40	Line of Tala it.	Net Tested	Net Tested	0000	4074		0.00	000	000	0.004	07	0.40	504	0.7
4/8/2021	E-21-005P	31.028888	-97.901666	949.27	440	Upper Trinity	Not Tested	Not Tested	3800	1971		8.28	280	380	0.321	0.7	0.16	564	2.7
4/12/2021	E-20-098P	30.919620	-97.378377	518.86	21	Alluvium	Not Tested	Not Tested	958	472		1.75	260	120	0	5.6	0.23	78	0.3
4/12/2021	E-20-112P	31.186730	-97.275959	636.01	80	Alluvium	Not Tested	Not Tested	617	300		7.9	260	180	0.009	0	0.77	15	1.1
4/12/2021	E-21-014P	30.984298	-97.480373	584.28	195	Edwards (BFZ)	Not Tested	Not Tested	2187	1116		8.06	360	80	0.002	0.8	0.32	325	6
4/12/2021	N1-20-002P	31.002733	-97.519652	635.37	120	Edwards (BFZ)	Not Tested	Not Tested	647	313		7.85	260	280	0.009	3.5	0.23	9	0.7
4/21/2021	E-07-042P	30.934499	-97.607180	730.17	840	Middle Trinity	Not Tested	Not Tested	3270	1678		7.88	440	440	0.007	2.1	0.11	814	1.85
4/21/2021	E-07-042P	30.934499	-97.607180	730.17	840	Middle Trinity	Not Tested	Not Tested	3270	1678		7.88	440	440	0.007	2.1	0.11	814	1.85
4/21/2021	E-07-042P	30.934499	-97.607180	730.17	840	Middle Trinity	Not Tested	Not Tested	3350	1730		7.77	440	420	0.017	1	0.05	836	3.45
4/28/2021	E-20-087P	30.967823	-97.790877	814.06	480	Middle Trinity	Not Tested	Not Tested	1978	996		8.29	340	180	0	1	0.13	367	5.5
4/28/2021	E-21-016P	30.976070	-97.621100	865.76	825	Middle Trinity	Not Tested	Not Tested	1300	646		9.49	260	40	0.001	1	0.39	228	2
4/28/2021	E-21-030P	30.977214	-97.814084	789.13	565	Lower Trinity	Not Tested	Not Tested	2880	1476		8.31	480	80	0.003	0	0.8	141	4.5
5/10/2021	E-21-001P	31.019667	-97.896849	817.52	340	Upper Trinity	Not Tested	Not Tested	3720	1923		7.38	320	300	0	0.4	0.64	534	2.2
5/10/2021	E-21-015P	31.040361	-97.910765	984.252	460	Upper Trinity	Not Tested	Not Tested	4200	2186		7.39	320	300	0	0.7	0.53	610	3.2
5/18/2021	E-20-105P	30.911666	-97.721666	969.39	850	Middle Trinity	Not Tested	Not Tested	917	450		8	300	140	0.001	0.145	0.79	77	1.12
6/9/2021	E-21-002P	31.020835	-97.900460	875.56	390	Upper Trinity	Not Tested	Not Tested	3770	1955		8.03	280	280	0.02	0.251	0.18	486	2.1
6/11/2021	N2-20-007G	30.876146	-97.609419	767.72	880	Middle Trinity	Not Tested	Not Tested	1927	964		8.36	320	240	0.006	0	0.44	429	4.5
6/11/2021	N2-20-007G	30.876146	-97.609419	767.72	880	Middle Trinity	Not Tested	Not Tested	1925	963		8.27	300	240	0.001	0.8	0.21	452	4.5
6/11/2021	N2-20-007G	30.876146	-97.609419	767.72	880	Middle Trinity	Not Tested	Not Tested	1904	960		8.16	300	240	0.002	1.4	0.28	438	2.5
6/17/2021	E-02-1066G	30.920709	-97.796244	855.28	450	Upper Trinity	Absent	Absent	1238	614		8.6	320	60	0.001	0.257	0.78	148	2.72
6/21/2021	E-21-011P	30.941914	-97.603964	714.29	70	Edwards (BFZ)	Not Tested	Not Tested	690	336		8.03	320	300	0.001	0.6	0.2	7	0
6/21/2021	E-21-034P	30.940260	-97.600810	711.35	880	Middle Trinity	Not Tested	Not Tested	1462	729		8.39	340	120	0	0.7	0.52	173	2.5
6/21/2021	E-21-048P	30.938680	-97.598900	686.89	845	Middle Trinity	Not Tested	Not Tested	1552	775		8.37	360	120	0.004	0.8	0.17	205	2.5
6/23/2021	E-06-063P	31.026711	-97.761913	898.48	600	Middle Trinity	Not Tested	Not Tested	2970	1505		8.23	440	260	0.005	3.1	0.61	630	3.85
6/23/2021	M-13-001P	30.901709	-97.769470	905.51	647	Middle Trinity	Not Tested	Not Tested	2470	1258		8.4	380	240	0.057	1.1	0.16	725	6.95
6/23/2021	M-19-002P	30.965058	-97.788392	814.3	467	Middle Trinity	Not Tested	Not Tested	1466	734		8.91	400	60	0	4	0.28	146	5.2
7/8/2021	E-18-047P	30.970923	-97.607348	804.81	100	Edwards (BFZ)	Not Tested	Not Tested	671	327		8.05	320	320	0.846	2.4	0.11	7	0
7/8/2021	E-21-050P	30.979430	-97.636740	892.15	860	Middle Trinity	Not Tested	Not Tested	1093	539		8.93	340	80	0.002	0	0.97	116	1.35
7/13/2021	E-21-044P	30.885180	-97.604750	753.16	910	Middle Trinity	Not Tested	Not Tested	1131	559		8.88	340	100	0.004	0.166	0.62	126	2.12
7/20/2021	E-21-031P	31.048378	-97.850762	996.25	560	Middle Trinity	Not Tested	Not Tested	2780	1305		8.12	280	500	0.126	0.532	0.07	600	3.4
7/21/2021	E-21-004P	31.038873	-97.908562	951.444	440	Upper Trinity	Not Tested	Not Tested	4340	2073		8.3	400	500	0.008	0.215	2.59	585	3.15
7/27/2021	N2-21-006P	30.967131	-97.522519	608.61	290	Edwards (BFZ)	Not Tested	Not Tested	723	354		8.01	340	420	0.004	3.82	0	23	0.5
7/29/2021	E-21-019P	30.985898	-97.825956	727.95	380	Middle Trinity	Not Tested	Not Tested	1714	975		8.82	460	320	0.014	0.23	0.29	114	5
7/29/2021	N2-21-005P	30.935388	-97.789571	869.28	600	Lower Trinity	Not Tested	Not Tested	1636	922		8.56		240	0.041	0.409	0.12	133	4.25
7/29/2021	N2-21-006P	30.967131	-97.522519	608.61	290	Edwards (BFZ)	Present	Absent											
8/24/2021	E-21-031P	31.048378	-97.850762	996.25	560	Middle Trinity	Not Tested	Not Tested	2320	1175		8.4	260	480	0.008	1.2	0.18	627	3
8/24/2021	E-21-052P	30.940260	-97.807581	885.827	560	Middle Trinity	Not Tested	Not Tested	1804	903		8.38	320	240	0.003	0.2	0.08	411	4.5
8/24/2021	E-21-054P	30.982587	-97.831074	721.785	340	Middle Trinity	Not Tested	Not Tested	1547	773		8.65	400	80	0.005	0	0.29	124	5.5
8/25/2021	E-21-032P	30,914940	-97.609648	656,168	810	Middle Trinity	Not Tested	Not Tested	1539	769		8.39	320	120	0.743	0.48	7.02	255	2.9
8/25/2021	E-21-061P	30.939340	-97.596790	693.2	865	Middle Trinity	Not Tested	Not Tested	2013	1016		8.57	340	120	0.006	0.183	0.55	397	3.1
8/31/2021	E-22-007P	30.928024	-97.717994	754.593	780	Lower Trinity	Not Tested	Not Tested	2127	1073		8.98	400	80	0.005	5.9	0.49	34	6.35
8/31/2021	E-22-007P	30,928024	-97,717994	754.593	780	Lower Trinity	Not Tested	Not Tested	2117	1070		8.75	420	80	0.001	1	0.22	18	6.5
8/31/2021	E-22-007P	30.928024	-97 717994	754 593	780	Lower Trinity	Not Tested	Not Tested	2129	1075		87	420	80	0.006	84	0.56	4	6.7
9/2/2021	E-21-027P	31 033987	-97 906069	963.38	400	Upper Trinity	Not Tested	Not Tested	3630	1876		8.26	320	300	0.000	0	0.00	676	3.5
9/2/2021	N1-19-007P	31.014861	-97,895981	862	320	Upper Trinity	Not Tested	Not Tested	3050	1566		8.16	300	400	0.051	0.9	0	438	1.35
9/9/2021	F-21-036P	30,932399	-97,779375	868 49	510	Middle Trinity	Not Tested	Not Tested	1897	954		8.44	300	200	0.008	0	0.16	441	5
9/9/2021	E-21-049P	30,930340	-97 780070	820.21	500	Middle Trinity	Not Tested	Not Tested	1540	771		8.62	320	120	0.004	0.5	0.10	293	4 4
9/13/2021	E-19-230P	30 911420	-97 775581	868 10	580	Middle Trinity	Not Tested	Not Tested	1494	745		8.51	340	100	0.004	0.0	0.10	278	3.6
9/13/2021	E-21-060P	30.911420	-97 611715	834 54	850	Middle Trinity	Not Tested	Not Tested	1256	626		8 75	360	80	0.004	0.3	0.16	162	1.5
9/21/2021	E-15-001C	31 028242	-97 462680	58/ 02	000	Edwards Equivalent	Not Tested	Not Tested	613	200		8.22	280	280	0.000	0.0	0.10	28	2.4
9/21/2021	E-21-028P	30 952250	-97 662250	853 018	840	Middle Trinity	Not Tested	Not Tested	1054	510		7.67	420	400	0.001	54	0.02	100	0.8
		00.002200	01.002200	000.010	0-+0		NOL LESIEU	NOL I COLCU	1004	515	I	1.07	720	-00	0.001	0.4	0.10	103	0.0



### Salado Spring Samples

<u>Location</u>	<u>Date</u>	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	<u>Cond.</u>	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	<u>DO mg/L</u>	<u>DO %</u>	<u>Turbidity</u>
Big	21-Sep-16	156	48	7.96	284	584	4.26	0.003	0.315			
Boiling	16-Feb-17	119	46	7.57	355	727	4.28	0.007	0.341			
	21-Feb-17	208	120	7.69	293	602	2.9	0.002	0.31			
-97.536574	25-May-17	150	32	8.02	286	587	1.8	0.006	0.3			
30.943783	30-May-17	2:50	30	7.65	287	592	4.5	0.000	0.01			
	29-Jun-17	925	28	7.58	286	587	2.1	0.001	0.3			
	5-Jul-17	10:56	25	7.94	293	602	4.02	0.003	0.26			
	11-Aug-17	1245	21	7.84	294	602	1.8	0.004	0.2			
	14-Aug-17	1102	16	7.64	295	606	2.1	0.002	0.3			
	12-Mar-18	200	12	8.02	290	600		0.002	0.3			
	19-Mar-18	301	22	7.83	291	597		0	0.3			
	23-Mar-18	216	12	7.93	292	601		0.003	NT			
	26-Mar-18	944	12	8.02	290	596		0.003	NT			
	11-Sep-18	1028	23	8.05	297	612		0	0.2			
	29-May-19	1120	122	8.2	320	667		0.005	0.5			
	22-Jun-20	942	11	8.06	287	590		0.008	NT			
	13-Jul-20	215	10	8.06	282	583	4.29	0.002	NT			
	28-Jul-20	1042	10	7.84	296	609	4.48	0.016	NT			
	31-Aug-20	926	6	8.2	290	595	3.8	0.024	NT	7.38	85.2	
	10-Sep-20	1017	18	7.98	298	612	3.1	0.022	NT	7.65	86.5	
	3-Dec-20	830	12	8.02	293	604	4.1	0.003	NT	7.49	84.7	
	2-Jun-21	113	116	7.99	300	616	3.3	0.004	NT	6.37	73.1	0.45
	22-Jun-21	203	547	8.09	295	605	4.7	0.006	NT	7.48	85.3	0.39
	23-Sep-21	1015	18	7.97	296	609	2.8	0.002	NT	7.56	85.7	0.13
	18-Oct-21	1007	14	7.98	298	615	2.9	0	NT			0.04

Location	Date	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	Cond.	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	DO mg/L	<u>DO %</u>	<u>Turbidity</u>
	21-Sep-16	214	48	7.77	284	584	4.34	0.003	0.346			
Side Spring	16-Feb-17	122	46	7.57	295	608	4.29	0.004	0.296			
	21-Feb-17	210	120	7.66	293	602	2.3	0.004	0.38			
-97.536704	25-May-17	153	32	7.96	286	593	2.8	0.001	0.2			
30.943861	30-May-17	2:52	30	7.81	279	575	2.1	0.000	0.01			
	29-Jun-17	928	28	7.63	284	582	1.8	0	0.3			
	5-Jul-17	10:57	25	7.89	291	599	3.96	0.005	0.22			
	11-Aug-17	1247	21	7.77	290	595	2.9	0.002	0.2			
	14-Aug-17	1105	16	7.63	294	603	2.2	0.004	0.3			
	12-Mar-18	203	12	8.07	294	605		0.006	0.3			
	19-Mar-18	303	22	7.87	291	597		0.002	0.3			
	23-Mar-18	218	12	8.03	293	603		0	NT			
	26-Mar-18	946	12	8.07	290	598		0.005	NT			
	11-Sep-18	1030	23	8.1	299	616		0.002	0.3			
	29-May-19	1122	122	8.04	297	611		0.004	0			
	22-Jun-20	941	11	8.11	285	587		0.003	NT			
	13-Jul-20	217	10	8.07	283	582	4.31	0.001	NT			
	28-Jul-20	1043	10	7.95	296	608	4.62	0.019	NT			
	31-Aug-20	928	6	8.29	287	592	4.3	0.016	NT	7.47	86.7	
	10-Sep-20	1020	18	7.92	297	611	3.9	0.018	NT	7.07	80.3	
	3-Dec-20	828	12	8.07	293	603	4.6	0.009	NT	7.54	83.6	
	2-Jun-21	116	116	8.09	301	621	1.5	0.008	NT	6.07	69.2	0.32
	22-Jun-21	207	547	8.14	293	604	3.4	0.005	NT	7.08	80.7	0.67
	23-Sep-21	1018	18	7.94	296	610	4.5	0.004	NT	8.5	96.4	0.06
	18-Oct-21	1008	14	7.96	299	614	2.4	0.004				0
Location	Date	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	<u>Cond.</u>	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	DO mg/L	<u>DO %</u>	<u>Turbidity</u>
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Critchfield	21-Sep-16	244	48	7.73	285	586	4.18	0.003	0.368			
	16-Feb-17	136	46	7.56	295	607	4.3	0.005	0.262			
-97.534881	21-Feb-17	222	120	7.63	293	601	3.1	0.005	0.21			
30.943319	25-May-17	200	32	7.89	289	593	1.9	0.005	0.3			
	30-May-17	2:57	30	7.68	293	602	2.5	0.002	0.27			
	29-Jun-17	935	28	7.6	290	597	2.1	0.002	0.2			
	5-Jul-17	11:03	25	7.83	292	600	3.93	0.004	0.23			
	11-Aug-17	1257	21	7.75	295	608	3.4	0.002	0.2			
	14-Aug-17	1110	16	7.6	293	604	3.4	0.003	0.2			
	12-Mar-18	215	12	7.94	287	587		0.002	0.3			
	19-Mar-18	305	22	8.08	278	573		0.007	0.2			
	23-Mar-18	223	12	7.89	286	589		0.007	NT			
	26-Mar-18	950	12	7.98	290	598		0.009	NT			
	11-Sep-18	1038	23	8.06	287	592		0.011	0.3			
	29-May-19	1131	122	8	297	611		0.004	0			
	22-Jun-20	953	11	7.89	298	616		0.005	NT			
	13-Jul-20	224	10	7.83	296	608	4.16	0.002	NT			
	28-Jul-20	214	10	7.84	297	611	4.31	0.024	NT			
	31-Aug-20	940	6	8.13	289	593	4	0.016	NT	3.09	36.7	
	10-Sep-20	1030	18	7.86	297	612	2.3	0.017	NT	5.53	61.1	
	3-Dec-20	852	12	7.96	294	606	4.5	0.027	NT	7.64	75.2	
	2-Jun-21	125	116	7.9	307	637	2.8	0.002	NT	6.21	71.2	0.25
	22-Jun-21	218	547	8.05	302	623	3.1	0	NT	6.45	73.9	0.58
	23-Sep-21	1027	18	7.93	297	611	3.4	0	NT	8.5	96	0.06
	18-Oct-21	1015	14	7.96	298	614	3.5	0	NT			0.03

Location	Date	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	Cond.	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	DO mg/L	<u>DO %</u>	<u>Turbidity</u>
	21-Sep-16	251	48	7.92	288	598	4.08	0.003	0.273			
Doc Benedict	16-Feb-17	142	46	7.55	295	608	3.99	0.005	0.345			
	21-Feb-17	245	120	7.62	297	602	2.3	0.004	0.39			
-97.534948	25-May-17	205	32	7.82	296	611	2.3	0.006	0.3			
30.943967	30-May-17	3:06	30	8.09	288	592	2.3	0.002	0.42			
	29-Jun-17	940	28	7.55	271	558	2.1	0.008	0.2			
	5-Jul-17	11:07	25	7.81	293	603	3.85	0.004	0.26			
	11-Aug-17	100	21	7.71	295	602	3.5	0.001	0.2			
	14-Aug-17	1115	16	7.58	293	602	2.1	0.002	0.3			
	12-Mar-18	219	12	7.95	290	599		0	0.3			
	19-Mar-18	315	22	8.01	286	590		0.012	0.3			
	23-Feb-18	228	12	7.89	294	604		0	NT			
	26-Mar-18	953	12	7.96	290	596		0.001	NT			
	11-Sep-18	1045	23	7.92	294	604		0	0.3			
	29-May-19	1140	122	7.96	305	628		0.001	0.5			
	22-Jun-20	955	11	7.89	395	607		0.006	NT			
	13-Jul-20	227	10	7.95	287	592	4.31	0.001	NT			
	28-Jul-20	158	10	7.82	297	612	4.47	0.02	NT			
	31-Aug-20	945	6	8.09	292	601	3.9	0.027	NT	8.23	95.1	
	10-Aug-20	1037	18	7.79	297	611	2.7	0.017	NT	7.42	83.9	
	3-Dec-20	858	12	7.95	294	604	4.7	0.003	NT	7.49	83.4	
	2-Jun-21	134	116	7.88	303	624	2.2	0.007	NT	6.22	71.7	0.61
	22-Jun-21	225	547	8.03	303	620	1.1	0.004	NT	6.08	70.5	0.69
	23-Sep-21	1032	18	7.93	298	613	3.2	0.005	NT	8.49	96.1	0.14
	18-0ct-21	1018	14	7.94	299	615	1.9	0.006	NT			0.16

Location	<u>Date</u>	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	<u>Cond.</u>	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	<u>DO mg/L</u>	<u>DO %</u>	<u>Turbidity</u>
Anderson	21-Sep-16	300	48	7.87	284	584	4.18	0.005	0.354			
	16-Feb-17	152	46	7.72	297	612	3.99	0.008	0.473			
-97.534503	21-Feb-17	251	120	7.58	295	608	2.4	0.002	0.44			
30.944111	25-May-17	210	32	7.78	295	606	0.9	0.006	0.3			
	30-May-17	3:13	30	7.86	294	604	3.9	0.000	0.27			
	29-Jun-17	945	28	7.59	291	599	2.5	0	0.3			
	5-Jul-17	11:11	25	7.79	292	602	3.88	0.004	0.26			
	11-Aug-17	105	21	7.59	292	600	1.7	0.11	0.1			
	14-Aug-17	1120	16	7.66	291	598	1.9	0.006	0.3			
	12-Mar-18	222	12	7.84	288	596		0.009	0.3			
	19-Mar-18	318	22	7.96	287	589		0.004	0.3			
	23-Mar-18	232	12	7.86	288	594		0.002	NT			
	26-Mar-18	956	12	7.91	290	598		0.001	NT			
	11-Sep-18	1052	23	7.93	291	599		0.003	0.3			
	29-May-19	1146	122	7.93	298	616		0.003	0.5			
	22-Jun-20	1000	11	7.84	298	614		0.01	NT			
	13-Jul-20	231	10	7.88	296	609	4.1	0.022	NT			
	28-Jul-20	202	10	7.74	297	612	4.47	0.023	NT			
	31-Aug-20	953	6	7.98	299	614	3.3	0.34	NT	7.79	89.8	
	10-Sep-20	1042	18	7.81	297	611	3	0.021	NT	7.18	81.1	
	3-Dec-20	906	12	7.91	294	606	3.1	0.006	NT	7.3	81	
	2-Jun-21	140	116	7.8	309	627	1.5	0.006	NT	7.83	95.2	0.45
	22-Jun-21	237	547	8.02	290	596	3.8	0.002	NT	7	81.2	4.97
	23-Sep-21	1040	18	7.92	298	612	2.3	0.004	NT	8.73	98.5	0.29
	18-Oct-21	1022	14	7.93	298	612	3	0.007	NT			0.02

<u>Location</u>	Date	Time	CFS	<u>PH</u>	TDS	Cond.	<b>Nitrates</b>	<b>Nitrites</b>	Fluoride	DO mg/L	DO %	<u>Turbidity</u>
Upstream	21-Sep-16	224	48	8.05	241	499	2.58	0.008	0.235			
	16-Feb-17	124	48	7.59	242	500	2.05	0.017	0.326			
-97.536988	21-Feb-17	212	120	7.73	201	417	0.1	0.002	0.3			
30.943897	25-May-17	156	32	8.22	240	493	1.9	0.003	0.3			
	30-May-17	2:55	30	7.9	232	479	2.4	0.005	0.26			
	29-Jun-17	930	28	7.61	250	514	2.3	0.008	0.3			
	5-Jul-17	10:58	25	7.83	265	546	3.1	0.012	0.23			
	11-Aug-17	1250	21	7.66	235	487	2.1	0.014	0.1			
	14-Aug-17	1107	16	7.71	254	524	1.2	0.013	0.3			
	12-Mar-18	205	12	8.32	242	499		0.007	0.2			
	19-Mar-18	305	22	7.93	224	463		0.008	0.2			
	23-Mar-18	220	12	8.23	242	603		0.006	NT			
	26-Mar-18	948	12	8.15	241	498		0.008	NT			
	11-Sep-18	1032	23	8.38	162	338		0.013	0			
	22-Jun-20	939	11	8.25	259	534		0.003	NT			
	13-Jul-20	205	10	8.38	262	540	3.48	0.019	NT			
	28-Jul-20	1032	10	8.44	275	575	3.33	0.044	NT			
	31-Aug-20	912	6	7.98	267	551	2.9	0.052	NT	7.7	96.4	
	10-Sep-20	950	18	8.56	274	562	2.5	0.032	NT	5.83	65	
	3-Dec-20	1110	12	8.67	262	543	1.4	0.016	NT	9.94	96.7	
	2-Jun-21	100	116	8.32	207	430	0.3	0.006	NT	6.94	79.2	12.73
	22-Jun-21	153	547	8.61	109	229	0	0.02	NT	6.46	79.9	257
	23-Sep-21	1000	18	8	295	606	2	0.006	NT	8.73	98.1	0.81
	18-Oct-21	955	14	8.02	278	574	2.4	0.006	NT			1.02

	<u>Date</u>	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	Cond.	<u>Nitrates</u>	<b>Nitrites</b>	<u>Fluoride</u>	DO mg/L	<u>DO %</u>	<u>Turbidity</u>
Location	21-Sep-16	315	48	7.99	253	523	2.99	0.005	0.312			
	16-Feb-17	156	46	7.81	253	522	2.43	0.014	0.159			
Down stream	21-Feb-17	254	120	7.81	211	438	1.20	0.008	0.260			
	25-May-17	215	32	7.78	257	529	2.00	0.005	0.200			
-97.533989	30-May-17	3:17	30	7.86	257	530	2.60	0.003	0.290			
39.944543	29-Jun-17	950	28	7.61	292	601	2.4	0.004	0.2			
	5-Jul-17	11:13	25	7.8	278	573	3.56	0.006	0.22			
	11-Aug-17	110	21	7.69	263	542	2.4	0.005	0.2			
	14-Aug-17	1125	16	7.73	272	563	2.2	0.01	0.2			
	12-Mar-18	230	12	7.83	270	557		0.002	0.3			
	19-Mar-18	322	22	8.35	260	529		0.003	0.3			
	23-Mar-18	235	12	7.89	270	557		0.005	NT			
	26-Mar-18	1000	12	7.94	269	554		0.006	NT			
	11-Sep-18	1056	23	8.02	191	396		0.012	0.1			
	22-Jun-20	1005	11	7.86	283	581		0.009	NT			
	13-Jul-20	234	10	7.87	291	599	3.91	0.024	NT			
	28-Jul-20	207	10	7.84	277	570	3.84	0.017	NT			
	31-Aug-20	1002	6	7.92	291	603	3.8	0.035	NT	8.34	101.1	
	10-Sep-20	1051	18	7.8	269	556	3	0.033	NT	8.13	91.5	
	3-Dec-20	912	12	7.91	281	578	4	0.17	NT	8.91	91.2	
	2-Jun-21	149	116	7.92	220	456	1.6	0.005	NT	8.09	92.3	8.69
	22-Jun-21	241	547	8.24	130	291	0	0.023	NT	6.52	80.4	208
	23-Sep-21	1050	18	7.91	293	605	3.4	0.004	NT	8.85	99.8	1.01
	18-Oct-21	1028	14	7.97	274	564	1.4	0.008	NT			0.7

	<u>Date</u>	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	<u>Cond.</u>	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	<u>DO mg/L</u>	<u>DO %</u>	<u>Turbidity</u>
Location	13-Nov-15	unk	unk	unk	279	575	4.00	0.002	0.200			
	22-Sep-16	400	48	7.69	285	588	4.32	0.004	0.341			
Cave Well	16-Feb-17	214	46	7.65	294	608	4.31	0.005	0.293			
	21-Feb-17	308	120	7.75	293	603	4.20	0.000	0.400			
-97.53777	25-May-17	225	32	7.77	292	601	2.20	0.003	0.300			
30.942044	30-May-17	3:29	30	7.66	292	602	1.30	0.003	0.020			
	11-Aug-17	140	21	7.6	293	603	3	0.003	0.1			
	19-Mar-18	333	22	7.9	284	582		0.001	0.3			
	23-Mar-18	242	12	7.87	292	601		0.002	NT			
	26-Mar-18	1009	12	7.89	290	599		0.002	NT			
	11-Sep-18	1110	23	7.93	289	594		0.004	0.3			
	22-Jun-20	1027	11	7.83	296	609		0.005	NT			
	13-Jul-20	242	10	7.85	297	610	4.41	0.019	NT			
	28-Jul-20	222	10	7.81	296	611	4.63	0.026	NT			
	31-Aug-20	1015	6	7.9	296	609	4	0.028	NT	7.38	85.2	
	10-Sep-20	1100	18	7.79	295	602	4.2	0.029	NT	6.89	78	
	3-Dec-20	1120	12	7.93	293	605	4.7	0.015	NT	7.67	85.6	
	2-Jun-21	215	116	7.87	298	614	3.6	0.003	NT	8.4	97.7	0.14
	22-Jun-21	258	547	8	294	605	3.7	0.008	NT	7.57	86.5	0.8
	23-Sep-21	1104	18	7.9	298	611	3.4	0.002	NT	8.56	97	0
	18-Oct-21	1037	14	7.95	298	612	3.2	0.004	NT			0.02

	<u>Date</u>	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	Cond.	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	DO mg/L	DO %	<u>Turbidity</u>
Location	12-Mar-18	145	12	8.58	297	617	7.3	0	0			
Robertson	19-Mar-18	254	22	7.89	285	589	5.7	. 11	0.3			
	23-Mar-18	210	12	8.56	294	615		0.001	NT			
-97.540273	26-Mar-18	935	12	8.53	311	653		0.003	NT			
30.944542	11-Sep-18	1017	23	8.5	205	424		0.027	0			
	22-Jun-20	932	11	8.48	284	592		0.003	NT			
	13-Jul-20	250	10	8.02	301	617	4.29	0.001	NT			
	28-Jul-20	235	10	8.03	297	611	4.61	0.021	NT			
	10-Sep-20	950	18	8.56	274	562	2.5	0.007	NT	7.71	86	
	3-Dec-20	1130	12	8.26	291	599	2.9	0.025	NT	8.87	97	
	2-Jun-21	230	116	8.2	299	612	2.4	0.004	NT	7.04	85.5	1.75
	22-Jun-21	315	547	8.22	284	583	2.1	0.01	NT	7.54	86.3	0.38
	23-Sep-21	1113	18	8.08	297	612	4.7	0.005	NT	8.83	99.6	1.21
	18-0ct-21	1046	14	8.12	278	609	3.5	0.005	NT			0.35

	<u>Date</u>	<u>Time</u>	<u>CFS</u>	<u>PH</u>	<u>TDS</u>	<u>Cond.</u>	<u>Nitrates</u>	<u>Nitrites</u>	<u>Fluoride</u>	<u>DO mg/L</u>	<u>DO %</u>	_	
<b>Location</b>	29-May-19	1117	122	8.09	300	616		0.005	NT				
Little Bubbly												1	
												1	
-97.536847												4	
30.943759												1	
												1	
												1	
												1	
Location	Date	Time	CFS	РН	TDS	Cond.	Nitrates	Nitrites	Fluoride	Phosphate	Sulfate	Alkalinity	Hardness
S-20-001	<u>17-lul-20</u>	950	NA	8.41	340	685	0.114	0.016	1.43	0.182	26.9	300	300
0 20 001	17 501 20	550		0111	0.10	005	0.111	0.010	1.10	0.102	2015		
30 94159													
-07 510707													
-97.519797												<b> </b>	
Leastien	Data	Time	CEC		TOC	Cond	Nituataa	Nitritoo	Flueride	Dheashata	Culfata		
				<u>РП</u>		<u>Conu.</u>		<u>Nitrites</u>		Phosphate	Sunate		naruness
S-20-002	17-Jul-20	950	NA	8.06	664	1337	0.151	0.017	0.46	0.212	44	200	360
30.941474												ļ!	
-97.519509													



# Salado Salamander Monitoring, Bell County Final Report 2021



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# Table of Contents

Acknowledgements	. 2
Executive Summary	. 3
Introduction	. 3
Methods	. 4
Results	. 5
Robertson Springs and Downtown Spring Complex	. 5
Solana Ranch Spring #1	. 7
Aquifer Invertebrates	. 8
Stream Flow and Well Height Data	. 8
Discussion	. 9
Literature Cited	23



Salamander #211 from September of 2017 (top), February of 2019 (left) and August of 2021 (right) identified from photographic analysis.

# Acknowledgements

We appreciate the support from Clearwater Underground Water Conservation District for funding the monitoring in 2021.

# **Executive Summary**

Monitoring of the Salado salamander concluded in December of 2021 finalizing the seventh year of monitoring by the Texas Fish and Wildlife Conservation Office (TXFWCO) at the Salado Downtown Spring Complex (DSC) and at Robertson Springs in Bell County. A total of 6 Salado salamanders were detected this year at the DSC and Robertson springs. Four were collected from Side Spring (DSC) in May and two from drift nets at Robertson Springs in the summer. Collections at Robertson Springs were low during 2021. The springs were dry for around nine months and once the springs started to flow, the presence of beaver dams along the spring run flooded the cobble runs and potentially decreased the flow at the spring heads.

Monitoring continued at Solana Ranch Spring #1 (SR1) and providing a third year of quarterly count data. Quarterly monitoring producing a total of 108 detections producing 75 new individuals, and 33 recaptured salamanders from this year and previous sampling (determined through photographic analysis). One individual that was recaptured (#211) was first documented in September of 2017 and recaptured in October of 2021. Once again, the majority of salamanders captured at Solana were adults.

# Introduction

The Salado salamander (*Eurycea chisholmensis*) was first described in 2000 (Chippendale et al. 2000). Although the salamander had been discovered earlier and was in a collection kept at Baylor University by B.C. Brown, no formal description had been made. In addition, collecting individuals from this population proved to be difficult (Chippendale et al. 2000). Due to the limited knowledge about the species (population density, life history patterns), potential threats (dewatering and urbanization), and limited geographical range, this species was listed as threatened by the U.S. Fish and Wildlife Service (USFWS) on February 21, 2014. The USFWS designated critical habitat areas in 2021. Information regarding critical habitat can be found at <u>http://www.fws.gov/southwest/es/austintexas</u>.

The Salado salamander is highly restricted geographically and is hypothesized to have a very low population within Central Texas (Norris et al. 2012). Nice et al. (2021) presented an analysis on the effective population size, showing that the northern populations (i.e. DSC, Robertson, Solana) have a lower effective population size compared to sampled populations in the southern group of Salado salamanders (Cowan Creek Spring and Twin Springs). Pyron and

Weins (2011) conducted an overarching genetic analysis of Amphibia and their analysis also suggests that the original phylogenetic analysis by Chippendale et al. (2004) was appropriate and that indeed the Salado and Georgetown salamanders are distinct species. Finally, a recent genetic study of the entire Edwards Plateau, funded through a Section 6 grant (#443022) by Dr. Hillis of the University of Texas, confirms the species designation was indeed scientifically valid (Devitt et al. 2019).

Before monitoring by Texas Fish and Wildlife Conservation Office (TXFWCO), there was no active research or monitoring program in place for this species. The TXFWCO has been conducting long term monitoring of the species within Bell County. A long-term data set will eventually provide a statistically valid sample size for future management decisions.

## **Methods**

Sampling was conducted quarterly this year at the DSC, Robertson Springs, and SR1 (Figure 1). Timed searches were used at Robertson Springs, while Side and Anderson springs (both in the DSC) were searched entirely due to the small area of the springs. Solana Ranch Spring #1 was sampled from the spring orifice to a location where the spring run fans and enters the main channel. Any areas where the water emerged from under gravel and cobble piles were searched. A smaller spring, adjacent to the main spring, was also searched quarterly from the orifice to the main channel . All springs were actively searched by turning over rocks and debris. Captured salamanders were placed into mesh bags and kept in the spring run for processing. During timed searches, all mesohabitats were searched for salamanders. Basic water quality parameters were measured using a Hydrotech compact DS5 (Hydrotech ZS Consulting, Round Rock, Texas).

At several locations, drift nets with 250 µm mesh were used for passive sampling at Robertson Springs and SR1. The drift nets were placed over the spring orifice for a minimum of seven days as part of the monitoring regime. Aquatic invertebrates captured in the drift nets were taken back to the lab, sorted, identified, and enumerated. Most taxa were photographed using a dissecting scope with certain taxa sent to experts for identification.

If a salamander was captured during any survey, the primary substrate and vegetation were documented. If a salamander was captured in the drift net placed over an orifice, a designation of cave conduit was applied for substrate. Salamanders were considered adults if they measured over 25 mm (Bowles et al. 2006). All captured salamanders had two sets of photographs taken. First, photographs alongside a ruler were taken to determine total length of the salamander (mm) using the program ImageJ (Schneider et al. 2012). Following that, a close-up photograph of the head was taken to be used with the program WildID (Bolger et al. 2012) to determine if any individuals were recaptures (Bendik et al. 2013).

Due to low surface densities encountered at the sites over the years, the data have been collapsed and examined cumulatively. As in previous reports, the overall dataset (size classes, associated substrate and vegetation percentages) has been updated to include the 2021 collections. Data was grouped into seasonal blocks for a size distribution analysis. The relative abundance of the salamanders was calculated for each season based upon size classes. Size classes are from 0-19, 20-29, 30-39, 40-49, 50-59, 60-69 mm.

The salamanders from SR1 were examined by creating a probability from the 2019 - 2021 capture history of each salamander. In 2019, 87 individuals were detected from six sampling events. In 2020, 101 individuals from five sampling events were detected. Then in 2021, 107 individuals were detected from four sampling events. Each time a salamander was captured and identified, it received a 1 for that sampling event, therefore the capture history of a salamander for 2019 may resemble 101001 (six number places for six events, 0 = not detected, 1 = detected). For this example, the probability is the sum of the captures divided by the number of events, therefore, 0.5. By examining average probabilities of the capture history for the salamanders, there might be some insight into the effort of sampling between years.

Water level and flow data were collected from the Cemetery Well (Monitor well #5804628) and from the USGS gauge on the Salado Creek (USGS #08104300) from 2014 to 2021. This data was plotted with the total collection of salamanders from each year of sampling since 2015. This analysis was conducted to determine if there is an indicator for the issuance of spring flow at Robertson Springs, and to identify preliminary trends associated with the salamander collections.

## Results

#### Robertson Springs and Downtown Spring Complex

In 2021, a total of 6 salamanders were detected at Robertson Springs and the DSC (Table 1). Of these 6, two were juveniles (< 25 mm total length; Bowles et al 2006) and 4 were adults.

Most salamanders were captured from the DSC at Side Spring (n = 4). Robertson Springs produced two salamanders, both from the Headwaters zone (Figure 2). Spring flow at Robertson Springs had not returned to the Headwater, Middle, or Ludwigia zones by January 12, 2021. However, beginning in May four or five major rain events produced enough rain to begin flows at Robertson Springs (Figure 3). By June 6<sup>th</sup> of 2021, flow at the Robertson Springs complex began to issue forth from the main spring zones. Drift netting captured both salamanders at Robertson Springs in July and September of 2021. No orifices were drift netted for passive sampling at the DSC in 2021. Drift netting at the DSC is complicated because the public use the area and the equipment is likely to be tampered with or removed. Water quality data is presented in Table 4.

A total of 177 Salado salamanders have been captured since 2015. Three salamanders do not have associated substrate or vegetation data, leaving 174 salamanders to examine the substrate and vegetation associations. A total of 67 (38%) salamanders have been captured in drift nets, presumably leaving the aquifer. Of the remaining 107 salamanders caught on the surface, 70 (65%) have been caught in gravel as the primary substrate, and 28 (26%) have been caught in cobble as the primary substrate (Table 2). Data from past habitat sampling at Robertson Springs has shown around 50% of the substrate to be silt when no beaver dams are present and up to 90% silt when inundated due to dams (Diaz et al. 2016). Salamanders have been captured in many types of vegetation, but 43 (41%) have been shown to associate with watercress (*Nasturtium* sp.), and 38 (36%) have been captured in areas with no vegetation.

From the 177 total individuals detected, 169 were used to examine the temporal shift in size for surface populations at the DSC and Robertson Springs. The updated temporal shift in size of the surface population shows a classic size progression from smaller to larger, over the course of the year (Figure 4). Size class trends remain the same throughout the year. In spring, most salamanders captured were in the smallest size class ranging from 10 to 19 mm. The line for spring is minimally expressing a bimodal hump, with a smaller hump in the fifth size class. In summer, the smallest size class is still distinct, however, the third size class is represented the most and constitutes the second hump. During fall, the bimodal hump resembles the inverse of the spring line as the 4<sup>th</sup> size class is the most expressed. The winter line is similar to the fall line except the initial hump of the line is in the first size class other than the second size class as in

fall. Overall, the most salamanders have been detected in spring, with the least detected in winter (Figure 5).

There appears to be a trend with juvenile salamanders and their appearance on the surface. While juvenile salamanders have been captured throughout the year, there is some clustering from spring to summer, indicating young of the year being detected on the surface (Figure 6). To test for this we ran a chi-squared test with the software package R, where we assume that juvenile salamanders should be present equally over the course of the year. This would be the case if there is no breeding season. To estimate the age of the juvenile salamanders, we used growth curves from the San Marcos Aquatic Resource Center that show a salamander under 20 mm is about a month old (unpublished data). Therefore, using these assumptions a chi-squared test was run and a significant difference was detected with season and juvenile salamanders under 20 mm in total length which are hypothesized to be around 30 days old (x-squared = 37; df = 3; p = <0.0001).

#### Solana Ranch Spring #1

A total of 123 salamanders were captured at SR1 during 2021. After removing recaptures of individual adult salamanders (n=33), the capture history shows that 75 new individual adult salamanders were detected and photographed during 2021 (Table 3). Monitoring data from 2021 identified one recaptured individual (salamander #211) from September 2017. The average capture probability for detecting an individual at SR1 this year increased to 0.30 compared to 0.24 from 2020.

Only one salamander was considered a juvenile (<25 mm). Reviewing the salamanders capture data at SR1, dating back to 2017, the majority of the surface population were adults (91%). The size average, based on the 440 salamanders detected since 2017, is 51.39 mm. The largest Salado salamander (87 mm), captured to date, was captured at SR1 in October 2020. The largest salamander captured in 2021 was 72.87 mm.

The temporal shifts in size class follow the same trends as the DSC and Robertson Springs data, but the overall population exhibits larger salamanders on the surface year-round (Figure 7). During the fall there have been no documented occurrences of salamanders in the first or second size class.

Cannibalism was documented in 2019 during the mark and recapture work. One individual salamander was caught with three eyes at first glance (Photo 1). Following a closer

inspection, a juvenile salamander head was seen sticking out of the larger salamander's mouth. The juvenile salamander appeared incapacitated and was left in place.

#### Aquifer Invertebrates

Drift net sampling at some of springs within the Robertson Springs and Anderson Springs (DSC) has been conducted to examine surface recruitment and detect juveniles exiting the aquifer. It has also provided a detailed data set of the karst invertebrates present at each spring opening or complex. Sampling the springs with drift nets has shown large range extensions for a number of aquifer-dwelling taxa (Alvear et al. 2020<sup>a</sup>) and provided samples of undescribed species (Alvear et al. 2020<sup>b</sup>, Gibson et al. 2021) present within this section of the Northern Edwards Aquifer.

Based on samples collected since 2015, we have a basic understanding of the stygofaunal (aquifer-dwelling taxa) community structure at the springs studied in Bell County. Drift net sampling examined over 2,100 days (2015 to June of 2018), collected over 4,500 aquifer dwelling individuals (Table 5). The majority of the community is comprised of *Stygobromus* spp. (45%; Amphipoda; three species) and aquifer snails (32%; five species). The two most abundant families of snails are in the family Hydrobiidae (Phreatodrobia conica; 14%) and then the family Lithoglyphidae (Phreatocerus taylori; 9%). The isopod, Lirceolus spp. totaled 13% of the collected individuals with three species present in the community (Schwartz et al. 2020). All of these stygofauna are within the size range, during all life stages, to be prey items for salamanders. Two studies suggest that there are increases in other aquifer snails, although a different family, during the summer (Johnson et al. 2019) and spring (Diaz et al. 2020). In addition to the aquifer invertebrates, many terrestrial karst invertebrates have been captured over the monitoring period. Most interesting from the terrestrial group include specimens of *Cicurina* sp, Speodesmus sp., and Lymantes nadineae (Photo 2). In the 2015 report, Myrmecodesmus reddelli, was stated as being present at Robertson Springs. Paul Marek, a millipede expert at Virginia Tech, was sent the specimens and in May of 2019 a determination was made that the Myrmecodesmus in question is indeed, M. formicarius, not Myrmecodesmus reddelli, which would have been a large range extension.

#### Stream Flow and Well Height Data

Although there have been varying levels of sampling effort over the years, if the springs are dry no salamanders will be surfacing. Once the springs on the Robertson property go dry, a

large percentage of salamanders are removed from the potential total at year end. Only when flows return to the springs at the Robertson property do the probabilities of capturing a salamander return. The USGS gauge on Salado Creek (#08104300) and Cemetery Well levels were plotted to see if there is a connection between well level and spring flow at Robertson Springs (Figure 8). In 2020, flows from the productive spring zones at Robertson Springs began to fade out in early June and the flows did not return at the end of the year as they have in the past. . In 2021, spring flow returned in early June reducing the amount of time the salamanders were available for detection at the surface. Figure 9 provides a visual representation between the Cemetery Well water level, flows from Salado Creek below the spring confluence (USGS #08104300) and yearly salamander detection totals. This graph suggest that the Cemetery Well levels, spring flows, and salamander detections reflect each other.

## Discussion

The collection of salamanders in 2021 was even lower than 2020 although spring flow returned at Robertson Springs. The DSC produced four salamanders which is low, but still within the range of what would be expected from this particular spring. In 2017, Side Spring produced six salamanders which is the second lowest year for collections with Side Spring having an average of 8.4 salamanders per year detected. Side Spring has produced more salamanders than other springs associated with the DSC.

The lack of salamander collections at Robertson Springs was initially surprising given the return of spring flow. However, once the springs began to flow, the area was colonized by at least one beaver. During 2016 and 2017, beaver dams were actively removed from the spring run at Robertson Springs monthly. This was done to provide optimal habitat for the salamanders to colonize, once out of the aquifer. The presence of the dams causes the spring run to rise into the spring zones submerging the available orifice present (Photo 3). This not only puts predation pressures on the salamanders from fish and crayfish, but in theory would decrease the flow of water exiting the orifice, and in turn, the reduced water pressures may cause less salamanders to be pushed from the aquifer.

The temporal shifts in size class for the Salado salamander appear to echo other research for the northern group of *Eurycea* sp. indicating a season for breeding. This life history pattern in the northern salamander group seems unique and could be facilitated by the shallowing of the

aquifer as the limestone tends to decrease in depth as the aquifer moves north. This type of shallowing of the limestone could cause the influx of recharge supplying allochthonous material to areas more rapidly than in deeper portions of the aquifer to the south.

Other research by Bendik et al. (2017) on the Jollyville Plateau salamander (*E. tonkawae*) and Pierce et al. (2014) on the Georgetown salamander (*E. naufragia*) both showed a peak time for gravidity in December, with Pierce et al. (2014) showing an additional peak in February or March for the Georgetown salamander. However, gravidity has not been observed in the Salado salamander in the number of observations necessary to elucidate any trends. What would be expected is to see a lag time between the gravid females observed by the two other authors and the observation of the salamanders in the first size class. Growth curves in captive San Marcos salamanders show that it takes about 60 days to reach around 15 mm. Therefore, if there was to be a peak in Salado salamander gravidity in December, the juveniles would be on the surface and up to about 15 mm at the earliest in late February. The Salado salamander seasonal dynamics graph shows the largest percentages of juveniles occur during spring, which runs from March to May. In other words, we might hypothesize that there is some peak in gravidity for the Salado salamander sometime in December or January, although undetected.

Habitat associations, given the smaller data set collected for the Salado salamander, compared to the other species to the south, are consistent with their reports of habitat associations taken from a larger sample sizes with more robust surface populations present (Bowles et al. 2006; Diaz et al. 2015). Due to the small surface populations at the monitoring sites, examining the data is statistically challenging, however, thinking about observed versus expected may be one way to look at the overall Salado salamander data set. Observed would be the data set for the Salado salamander (e.g. habitat associations). Expected would be the larger established and published data sets with more years of data collection and then anecdotally examining the congruence of the patterns within the two data sets to provide evidence of those observations collected in the Salado salamander. For example, substrate and diet data collected from 2015 to 2018 mentioned in the results is congruent with what is known and published about other southern salamander species (Bowles et al. 2006; Diaz et al. 2015). This published evidence does provide some further validity to the Salado salamander data despite the smaller sample size.

Based on the seven years of monitoring we have developed a hypothesis as to why the surface densities of these salamanders are historically small (Norris et al. 2012. The hydroperiod of the springs (i.e. the duration of discharge over time) and proximity to larger order streams, (i.e. ecological disturbance) may play a large part of influencing surface densities at historic Salado salamander sites (Robertson Springs and DSC). Salado Creek's hydroperiod includes large pulses of water after large rain events in the watershed. These pulses cause Salado Creek to rise high enough that it floods the spring outlets at the DSC and at Robertson Springs.

The spring flows in the DSC appear to be stable except for Little Bubbly Springs which has been intermittent during the study. However, Robertson Springs has a large fluctuation in hydroperiod. It was not flowing in 2015 and resumed discharging at many of the orifices in 2016. In 2017, the discharge began to decline again and ceased to flow in 2018. Flow returned to the springs at the beginning of 2019. In 2020, the flows began to subside in May and by August no salamander producing mapped spring zones were flowing. Flows in 2021 did not resume until June unlike years past when flows would return with in the first quarter in the year then slow or stop in the summer months and begin flowing again in the fall. In addition, Robertson and the DSC springs are at the known northern fringe of *Eurycea* distribution in Texas and the Edwards Aquifer. In comparison, the surface population present at SR1, just south of Salado, over the last five years have always been detectable and consistent with regards to count data. SR1 has had a consistent hydroperiod, is not near a larger order stream or river, and is south of the known northern locations for these salamanders. In addition, the small surface recruitment of salamanders seen at Robertson, DSC, and Anderson springs, based on the drift net data, suggest that the populations at these sites may be slow to recover from natural disturbances like a flood or cessation in flows.

Human disturbances have also been noted at the DSC. These cryptic salamanders require cover objects and associate with cobble and large gravel substrates. The movement of gravel and cobble in Salado Creek and at Big Boiling and Side springs, can cause the lack of cover objects in the pool area, reduced vegetative cover, and deepening of the spring riffles and spring orifices from artificial dams (human-made). These pressures are at the highest in the warmer months and add to the natural changes to the springs after flood events. In addition, the runoff flowing into Big Boiling during heavy rain events could be modified to prevent this surface flow entering the spring. Human pressure and salamanders have co-existed over the years at the DSC and other sites along the Edwards Plateau. However, these impacts should be documented and made apparent to management within the area. Other spring locations to the south, such as Barton Springs and Landa Lake, have similar situations where there are state and federally listed species present with heavy anthropogenic activity.

Given that surface densities are low but appear to be consistent given the flows over the last five years (2015- 2019), it is likely that a large proportion of the Salado salamander population is below the surface within the aquifer. In addition, if there is a catastrophic event that affects the aquifer, a long cessation in flows, or there is a need to simply examine changes in the next ten years based on population density, this genetic analysis can be repeated and genetic bottle neck events or recalculation of site population estimates can be reexamined with more certainty.

Nice et al. (2021) examined the genetic structure of accessible populations of the Salado salamander in Bell and Williamson counties. This analysis from 175 Salado salamanders revealed a homogenization of the genetic diversity in the northern group of Salado salamanders sampled at the DSC and Robertson Springs, with minute genetic drift to the south at SR1 (Nice et al. 2021). Due to the homogenization of the genetics from the sampled sites certain questions asked of the data were unanswerable, such as flow paths of genes or unique alleles present at a specific location. However, the data did reveal no level of genetic mixing between the southern and northern groups of the Salado salamanders. The management value of this research means that none of the northern sites are genetically unique, therefore no site is a cornerstone to the conservation of this species. This however does not mean that the known sites are not of ecological importance in terms of resiliency and redundancy for the species given its small geographic range. In addition, the data suggests that the population sizes at each site are large enough to maintain stable populations over the near future (Nice et al. 2021).

The views expressed in this paper are the authors and do not necessarily reflect the view of the U.S. Fish and Wildlife Service or Texas Parks and Wildlife Department.

Season	<b>Robertson Springs</b>	Downtown Spring Complex	Solana Ranch Spring #1
Winter	0	0	8
Spring	0	2	65
Summer	2	0	30
Fall	0	0	19

Table 1. Number of Salado salamanders collected during quarterly monitoring data using active and passive sampling techniques in Bell County, TX. (NS = not sampled).

Table 2. Habitat associations of the Salado salamander determined by 168 salamanders collected from 2015 to 2021 at the Downtown Springs Complex and Robertson springs.

1	0 1	1 0
	#	%
Cave Conduit	67	38.51
Substrate		
Silt	3	2.80
Sand	2	1.87
Gravel	70	65.42
Cobble	28	26.17
Boulder	4	3.74
Vegetation		
Sagittaria sp.	1	0.92
Nasturtium sp.	47	43.12
Filamentous Algae	4	3.67
Ludwigia sp.	3	2.75
Amblystegium sp.	5	4.59
Hydrocotyle sp.	2	1.83
none	40	36.70
Organic Debris	5	4.59
Grass	2	1.83

Table 3. Data collected from quarterly monitoring at Solana Ranch Spring #1 on individual
salamanders collected from each year. Recaptures are salamanders captured again during the
yearly monitoring although from a previous year of monitoring.

Solana	2019	2020	2021
Recaptures	12	15	33
New Individuals	75	86	75
<b>Total Individuals</b>	87	101	108
Average Prob	0.2	0.24	0.3

Site	Location	Date	Temp	Cond	DO	pН	Sallies
Robertson	HW	1/12/2021	20.49	585.5	7.60	7.11	0
LB		1/12/2021	19.12	610.3	7.35	6.89	0
Side		1/12/2021	20.57	604.5	7.89	7.03	0
BB		1/12/2021	20.78	604.2	7.77	7.08	0
Stagecoach		5/19/2021	20.81	593.4	7.70	6.61	0
Anderson		5/19/2021	20.4	609.8	6.28	6.71	0
Side		5/19/2021	20.86	608.1	7.55	6.90	4
Robertson		5/19/2021	Main	Springs	Dry	-	0
Solana	Side	5/25/2021	20.33	409.0	7.37	6.75	9
Solana	Main	5/25/2021	20.26	409.5	8.01	6.85	57
Stagecoach		5/25/2021	20.88	595.9	7.59	6.67	0
Robertson	HW	6/30/2021	20.99	581.3	13.06	6.81	0
Anderson		7/23/2021	21.32	604.6	7.12	6.67	0
Side		7/23/2021	21.38	594.8	NA	6.48	0
Stagecoach		7/23/2021	20.42	592.3	7.58	6.65	0
Robertson	HW	7/23/2021	21.01	578.1	11.88	6.78	1
Solana	Side	8/18/2021	21.13	487.1	7.24	6.63	3
Solana	Main	8/18/2021	20.89	487.3	7.74	6.71	27
Anderson		10/7/2021	20.95	583.3	7.14	6.72	0
Side		10/7/2021	20.99	585.7	7.54	6.57	0
Stagecoach		10/7/2021	20.91	583.0	7.29	6.82	0
Robertson	Middle	10/7/2021	21.16	579.5	7.53	6.40	0
Solana		10/12/2021	21.10	465.4	7.05	7.20	19
Solana		12/14/2021	20.69	485.3	6.44	7.53	8
Anderson		12/15/2021	20.91	596.1	7.04	6.65	0
Stagecoach		12/15/2021	20.92	594.6	7.2	6.67	0
Robertson	HW	12/15/2021	20.91	591.2	7.45	6.92	0
Robertson	Middle	12/15/2021	20.94	590.8	7.48	6.97	0
Hidden Spring	Side	12/15/2021	20.95	803.5	4.94	6.78	0

Table 4. Water Quality collected during 2021 from Salado salamander monitoring sites. LB = Little Bubbly, BB = Big Boiling, HW = Headwaters, Temperature (°C), Conductivity ( $\mu$ S/cm), DO (mg/L), pH (s.u.).

Taxa	Downtown Spring Complex	Robertson	Gault Site	Hidden Spring
Blind Dytiscidae sp. nov.		Х		
Caecidotea reddelli	Х	Х	Х	Х
Caecidotea bilineata		Х		
Lirceolus sp.*	Х		Х	Х
Lirceolus bisetus		Х		
Lirceolus hardeni*		Х		
Lirceolus pilus		Х		
Microcerberidae		Х		
Parabogidiella americana	Х	Х		
Stygobromus bakeri	Х	Х		
Stygobromus bifurcatus	Х	Х		Х
Stygobromus russelli	Х	Х		Х
<i>Texanobathynella bowmani</i> cf	Х	Х	Х	
Bathynellacea Type II		Х		
Phreatoceras taylori	Х	Х	Х	Х
Phreatodrobia conica	Х	Х	Х	Х
Phreatodrobia micra	Х	Х		
Phreatodrobia nugax	Х	Х	Х	
Sphalloplana mohria	Х	Х		Х
Schornikovdona bellensis	X	X	X	X
Uchidastygacarus sp.	X	X		

Table 5. Aquifer invertebrates collected from the Downtown Spring Complex and Robertson Springs. The *Lirceolus* sp. with an asterisk does not designate a new species, but the lack of species determination at that site.



Figure 1. Study area for Salado salamander monitoring conducted from 2015 to 2020.



Figure 2. Map of Robertson Springs showing spring zones mapped in 2016 during optimal flow conditions at the site. Light blue zones are spring zones, red dots are orifice, and the blue is the spring run terminating into Salado Creek (top right of image).



Graph courtesy of the U.S. Geological Survey

Figure 3. Hydrograph of Salado Creek showing the rain events causing Robertson Springs to flow in early June and the Downtown Springs Complex sites to flood.



Figure 4. Relative abundance of Salado salamanders reflecting the dominant size class captured from the Downtown Spring Complex and Robertson Springs by season from 2015 to 2021 for 169 salamanders. Size classes: 1 = 10 - 19.99 mm; 2 = 20 - 29.99 mm; etc.



Figure 5. Pooled collections by month of 169 Salado salamanders collected from 2015 to 2021.



Figure 6. Timing of the capture of juvenile salamanders (< 25 mm) at the Downtown Spring Complex and Robertson Springs. Panel A is all juvenile salamanders (n = 72) and Panel B is only salamanders below 20 mm (n = 56) estimated to be around 55 days old.



Figure 7. Relative abundance of Salado salamanders reflecting the temporal shift captured from sampling at Solana Ranch Spring #1 by season from 439 salamander detections (2015 - 2021). Size classes range from 10 -19.99 = 1; 20 -29.99 = 2; etc.



Figure 8. Data from the Cemetery Well (Monitor well #5804628) and from the USGS gauge on the Salado Creek (USGS #08104300) displayed monthly from 2014 to 2020.



Figure 9. Data collected from the Cemetery Well (Monitor well #5804628) and from the USGS gauge on the Salado Creek (USGS #08104300) plotted with the total collection of salamanders from each year sampled at the Downtown Springs Complex and Robertson springs.



Photo 1. Salamander captured during a mark and recapture event showing evidence of cannibalism at Solana Ranch Spring #1.



Photo 2. Terrestrial karst invertebrates captured while drift netting springs in Bell County, TX. Top left is a blind spider in the genus *Cicurina*. The top right image is of a blind weevil, *Lymantes nadineae*. The bottom photo is of a blind millipede in the genus *Speodesmus*.



Photo 3. Stream habitat at different times at the Beaver Spring zone, Robertson Springs. Photo A) beaver dam downstream of Beaver Spring zone, October 2021; B) Beaver Spring zone submerged due to the dam, October 2021; C) Beaver Spring zone after the beaver dam was removed, October 2021; D) Beaver Spring zone in 2019 unhampered by any beaver dams.

# **Literature Cited**

- Alvear, Dominique et al. 2020<sup>a</sup>. Expanding the Known Ranges of the Phreatic Snails (Mollusca, Gastropoda, Cochliopidae) of Texas, USA. *Freshwater Mollusk Biology and Conservation* 23: 1-17.
- Alvear D, Diaz PH, Gibson JR, Jones M, Perez KE. 2020<sup>b</sup>. An unusually sculptured new species of *Phreatodrobia* Hershler & Longley (Mollusca: Caenogastropoda: Cochliopidae) from central Texas. Zootaxa
- Bendik NF, Morrison TA, Gluesenkamp AG, Sanders MS, O'Donnell LJ. 2013b. Computerassisted photo identification outperforms visible implant elastomers in an endangered salamander, Eurycea tonkawae. PLoS ONE 8:e59424 DOI 10.1371/journal.pone.0059424.
- Bolger, D.T., T.A. Morrison, B. Vance, D. Lee, & H. Farid. 2012. A computer-assisted system for photographic mark-recapture analysis. Methods in Ecology and Evolution 3:813-822.
- Bowles, B. D., M. S. Sanders, R. S. Hansen. 2006. Ecology of the Jollyville Plataue salamander (*Eurycea tonkawae*: Plethodontidae) with an assessment of the potential effects of urbanization. Hydrobiologia 553: 111-120.

- Chippindale, P. T., A. H. Price, J. J. Wiens, & D. M. Hillis. 2000. Phylogenetic relationships and systematic revision of central Texas hemidactyliine plethodontid salamanders. Heretological Monographs 14:1-80.
- Chippindale, P. T., R. M. Bonett, A. S. Baldwin, & J. J. Wiens. 2004. Phylogenetic evidence for a major reversal of life-history evolution in plethodontid salamanders. Evolution 58:2809–2822.
- Diaz, P., M. Montagne, J.R. Gibson. 2016. Salado Salamander Monitoring Final Report 2016. Texas Fishand Wildlife Conservation Office. U.S. Fish and Wildlife Service, San Marcos, Texas.
- Diaz PH, Alvear D, Perez KE. 2020. Mesohabitat associations of the Devil Tryonia (Tryonia diaboli (Gastropoda: Truncatelloidea: Cochliopidae). *Freshwater Mollusk Biology and Conservation* 23: 18-24.
- Forstner, M. 2012. An evaluation of the existing scientific evidence for the currently proposed hyperdiversity of salamanders (*Eurycea* sp.) in central Texas. Unpublished report prepared for the Texas Salamander Coalition. June, 2012, 28 pp.
- Gibson J R, Hutchins B T, Krejca J K, Diaz P H, Sprouse P S. 2021. *Stygobromus bakeri*, a new species of groundwater amphipod (Amphipoda, Crangonyctidae) associated with the Trinity and Edwards aquifers of central Texas, USA. Checklist dataset https://doi.org/10.3897/subtbiol.38.61787.
- Johnson, W. P., M. J. Butler, J. I. Sanchez, and B. E. Wadlington. 2019. Development of monitoring techniques for endangered spring endemic invertebrates: An assessment of abundance. Natural Areas Journal 39:150–168.
- Nice, C.C., Fordyce, J.A., Sotola, V.A. Crow, J. Diaz, P.H. 2021. Geographic patterns of genomic variation in the threatened Salado salamander, *Eurycea chisholmensis*. Conservation Genetics 22:811-821. https://doi.org/10.1007/s10592-021-01364-z
- Pyron, R. A., Wiens J. J. 2011. A large-scale phylogeny of Amphibia including over 2800 species, and a revised classification of extant frogs, salamanders, and caecilians. Molecular Phylogenetics and Evolution 61(2):543-583. http://dx.doi.org/10.1016/j.ympev.2011.06.012.
- Schneider, C.A., Rasband, W.S., Eliceiri, K.W. 2012. "NIH Image to ImageJ: 25 years of image analysis". Nature Methods 9, 671-675.
- Schwartz, B., C. C. Nice, W. Coleman, W.H. Nowlin. 2020. Status assessment and ecological characterization of the Texas Troglobitic Water slater (*Lirceolus smithii*). Texas Parks and Wildlife Department Report. 26pp.





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# **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.





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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.




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#### **BRUSH CONTROL**

#### Home | Brush Control

#### **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.



Leaf Spray Method

Spot Spray Method

Cedar

Cut Stumps

Huisache

Mesquite

Top Removal Method

How to Estimate Costs for Controlling Small

Cut Stump Spray for Hardwood Species

Cut Stump Spray for Redberry Cedar

#### 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

Leaf Spray Method

Macartney Rose
 Leaf Spray Method

Stem Spray Method

Leaf Spray Method

Stem Spray Method

How to Estimate Cost for Controlling Mesquite



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**RECHARGE ENHANCEMENT** 

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### **RECHARGE ENHANCEMENT**



Where is my well? Where is my property? **Click Here** 

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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** 





State # CUWCD #	58-05-404 58-12-101 58-04-410 E-02-021P E-02-646G E-08-054P	58-04-408 E-10-005P	58-05-10658-04-63558-04E-13-009PE-18-043GUE-18-1	04-704 58-12 8-107P E-19-	12-204 58-12- 9-028P E-19-0	-205 58-04-418 )29P E-19-037P	58-04-638 58-04-639 E-19-079GU E-19-081GU	58 E-1	-04-363 58-04-702 58-04-816 58-04-628 58-13-502 19-113P M-06-001G M-08-001G M-08-002G M-12-014G	58-04-502 58-03-702 58-12-203 M-13-004G M-14-001P N1-18-002P	40-61-710 40-60-913 N1-20-001P N1-20-002P	58-04-623 5 N2-02-002G N2	8-04-602 58- 2-02-003G N2-0	-04-508 02-005G 1	58-04-509 58-04-510 58-04-626 58-04-512 58-04-513 N2-02-007G N2-02-008GN2-02-009GN2-02-010GN2-02-0110	58-04-627 58-04-637 58-04-317 58-04-631 G N2-03-004G N2-07-010G N2-10-002P N2-11-004	58-05-108 58-04-633 58-04-63 P N2-11-005P N2-15-004P N2-15-005	4 58-05-110 58-05-109 58-04-316 P N2-15-009P N2-15-010P N2-15-012	58-04-305 58-04-640 58-04-319 P N2-17-001P N2-19-007P N2-20-001	9 58-04-321 LCN2-21-006FN2-21-009FN2-21-01
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3/6/2017 12:00 3/31/2017 0:00		-65.50	-81.30						-72.35 -120.90 -60.13 -48.00	-48.10 -57.48		-75.00	-27.20			-47.20	-47.60 -46.90			
4/3/2017 0:00 5/8/2017 0:00									-72.46 -121.15 -69.82	-57.26			-26.97 -6 -55.17 -6	61.70 67.94	-72.74         -86.90         -62.10         -102.70         -82.49           -82.94         -112.70         -86.70         -83.29         -102.99					
6/4/2017 0:00 6/5/2017 0:00									-/2.48 -121.34 -63.60	-57.43			-27.37 -6	68.44	-79.94 -82.10 -62.60 -84.19 -76.49					
7/3/2017 0:00 7/6/2017 0:00	-37.40	-66.50	-105.10						-72.59 -122.22 -73.75 -46.40	-44.70 -58.06		-88.90	21.47	71.54	-05.14 -110.80 -85.30 -90.99 -79.29	-50.30 -75.20	-58.60 -58.00			
7/31/201/ 0:00 8/9/2017 0:00									-72.67 -122.76 -71.86	-57.88			-31.1/ -7	/1.54	-δ.υ4 -114.90 -87.10 -94.89 -81.59					
9/5/2017 0:00 9/11/2017 0:00									-12.10 -123.00 -54.90	-56.92			-28.77	70 54	-76.74         -111.80         -90.50         -93.09         -80.49           -75.14         110.80         -66.00         00.00         75.00					
10/3/2017 0:00 11/6/2017 0:00	-37.30	-66.90	-99.10						-72.85 -122.66 -52.50	-52.20		-79.40		70 14	-74.74	-44.10 -74.70	-57.30 -56.50			
11/27/2017 0:00 12/4/2017 0:00									-72 85 -123 96 -56 0/	-50.30 -58 <i>Δ</i> 1			-29.77 -	70.54	-76.24 -111 90 -91 50 -96 00 -102 90				-71.80	
12/29/2017 0:00 1/8/2018 0:00	-37.60	-66.70	-79.30						-72.94 -123.84 -61.67 -53.10	-51.20 -58.49		-81.20	-50.37 -6	61.54	-73.94 -64.40 -85.29 -102.89	-43.60	-48.50 -47.50			
2/5/2018 10:04 2/5/2018 10:05																				
2/5/2018 10:06 2/5/2018 10:07																				
2/5/2018 13:10 2/5/2018 13:11													-50.47	70.14						
				-				-												



Start measures weils quarterly in order to closely monitor the aquirer           State #         58-05-404         58-12-101         58-0	information through publication of conti 04-410 58-04-408 58-05-106	nuous monitoring data on the measureme	ents of the TxDOT wells and an additior	nal well in Salado, shown in red.	58-04-638	58-04-639 58-04-363	58-04-702 58-04-816	58-04-628 58-13-5	-502 58-04-502	58-03-702 58-12-203	40-61-710 40-60-913	58-04-623	58-04-602	58-04-508 58-04-	509 58-04-510	58-04-626	58-04-512 58-04-513 58-04-62	27 58-04-637 58-04-317 58-04-631 58-05-108 58-04-633 58-04-6	4 58-05-110 58-05-109 58-04-316 58-04-305 58-04-640 58-04-319 58-04-321
CUWCD #         E-02-021P         E-02-646G         E-08           Well Name         Avila         Trihn         Yo	B-054P E-10-005P E-13-009P Dung Coppin Thaler	E-18-043GU E-18-10 Brown Edwar	LO7P E-19-028P Ards Yepez	E-19-029P E-19-037P Yepez Fishbeck	E-19-079GU Campbell	E-19-081GU         E-19-113P           Lowry         Law	M-06-001G M-08-001G erson's Cro: Rest Stop	M-08-002G M-12-01 ado Cemeta City of Ba	014G M-13-004G I artlett Salado ISD a	M-14-001P N1-18-002P nult - Edwar Windy Meadov	N1-20-001P N1-20-002P vs Dillman Trust Donald & Sheryl R	N2-02-002G ich Stagecoach (deep)	N2-02-003G   lado WSC (#	i N2-02-005G N2-02-0 alado WSC (#alado WS	07G N2-02-008G 6C (#!lado WSC (#	50 04 020 5N2-02-0096f flado WSC (‡(	N2-02-010GN2-02-011G N2-03-00 (X Ranch (#{X Ranch (#alado ISD)	4G N2-07-010G N2-10-002P N2-11-004P N2-11-005P N2-15-004P N2-15-00 (M:Bloomer Mfg.es Constructarles Broeckes & Terry Boott Law Well aw Well #	50 05 110 50 05 105 50 04 510 50 04 505 50 04 505 50 04 515 50 04 521 5P N2-15-009P N2-15-010P N2-15-012P N2-17-001P N2-19-007P N2-20-001CN2-21-006FN2-21-009FN2-21-0 2, CLaw Well #6 - Well #7 - Braw Well #9 - Jaart of Texas Filalley Equine )G Propertillado RV Pa
Highest-78.70-210.60-3Lowest-93.20-214.50-3	0.30-58.30-76.209.70-73.30-128.10	-44.20 -63.9 -49.10 -68.0	90     -236.40       00     -246.00	-232.05 -36.11 -246.00 -38.50	-10.80 -14.41	-10.36 -53.80 -13.08 -87.40	-69.82 -113.20 -78.25 -129.44	-4.49 -37.14 -89.10 -73.8	10 -38.30 80 -60.00	-53.32 -234.00 -59.10 -248.00	-31.70-54.93-42.60-55.61	-66.10 -106.50	-21.57 -64.07	-56.14 -68.6 -72.74 -92.3	4 -60.00 4 -120.10	-58.40 -97.70	-75.59-72.49-34.60-103.19-103.21-50.70	-97.10         -74.50         -67.10         -36.70         -46.54         -45.42           -106.90         -75.00         -78.10         -85.50         -83.60         -83.61	-23.80       -17.95       -19.22       -71.30       -80.00       -69.80       -79.12       -106.00       -86.00         -35.01       -44.35       -47.90       -75.10       -96.80       -70.40       -81.22       -106.00       -86.00
2/5/2018 13:12       2/5/2018 13:14														-74.4	4 -84.90	-64.90			
2/5/2018 13:15       2/5/2018 13:16							72.02 424.20			50.52					4 06 50	<u> </u>	-86.09 -102.59		
3/5/2018 12:00 3/29/2018 12:00 2/20/2018 10:20	7.50						-72.92 -124.30 -124.48	-62.86		-58.53			-50.47	-61.64 -74.2	4 -86.50	-64.60	-89.69 -102.59		
3/30/2018 11:25									-52.20			-93.80							
3/30/2018 11:46 3/30/2018 12:00							-72.95	-75.11		-58.58								-75.10	-75.10 -7
3/30/2018 12:28       3/30/2018 12:40	-86.20																	-49.80	
3/30/2018 12:43       3/30/2018 13:27								-50.4	40										
4/2/2018 9:00 4/3/2018 9:00										E0 E7			-50.57	-71.04 -75.8	4	-66.10	-86.19 -102.89		
5/7/2018 12:00 6/3/2018 19:00							-73.22 -125.50 -73.27	-58.26		-58.57			-30.77	-69.14 -86.1	4 -111.90	-67.40	-90.89 -82.47		
6/3/2018 22:00 6/4/2018 0:00							-126.42	-48.49		-58.63									
6/4/2018 12:00 6/11/2018 10:00							-127.03						-31.17	-69.54 -85.7	4 -90.30	-89.90	-97.79 -83.89		Image: Constraint of the second sec
6/11/2018 12:00         6/12/2018 12:00													-32.77	-68.54 -88.3	4 -117.60	-90.30	-99.29 -85.09		
7/2/2018 0:00     7/2/2018 12:00       7/5/2018 0:30     -2	9.20												-50.97	-68.74 -89.2	4 -117.90	-91.10	-100.89 -85.89		
7/5/2018 9:40	-68.10											-82.10							
7/5/2018 10:30       7/5/2018 10:36									-51.20								-43.80		
7/5/2018 10:40																		-75.70	-71.60 -7
7/5/2018 11:35       7/5/2018 11:47	-115.40																	-73.18	
7/5/2018 11:50							-73.36 -126.74	-46.42		-58.71								-72.32	
7/9/2018 12:00       7/16/2018 12:00								-51.0					-32.97	-59.48 -80.5 -59.64 -78.7	4 -91.50 4 -89.70	-95.20 -93.70	-99.49 -84.69 -100.89 -84.69		
7/23/2018 12:00       7/30/2018 8:00													-50.97	-69.24 -91.5 -69.54 -92.3	4 -119.20 4 -120.10	-91.70 -92.50	-103.19 -86.29 -102.99 -102.89		
8/6/2018 12:00       8/9/2018 12:00							-73.29 -128.87	-40.05		-58.72			-50.97	-69.54 -90.7	4 -119.70	-92.30	-103.09 -102.69		
8/13/2018 12:00         8/20/2018 12:00         2/27/2018 12:00							-73.29 -127.84	-46.20		-58.73			-34.07 -50.97	-59.40 -80.1 -69.24 -90.5	4 -91.20 4 -118.90	-94.90 -97.00	-100.90     -84.99       -101.29     -85.99		
9/3/2018 12:00 9/10/2018 12:00							-73.36 -129.06	-42.24					-50.97	-72.54 -90.5	4 -119.10	-97.70	-103.19 -86.29		
9/17/2018 12:00 9/24/2018 12:00													-32.77	-58.84 -77.5 -58.54 -77.1	4 -87.10 4 -87.30	-69.50 -67.30	-96.69         -82.39           -96.69         -84.40		
9/27/2018 10:10 9/27/2018 10:32 -3	-68.10																		
9/27/2018 11:17 9/27/2018 11:26									-50.00								-42.60		Image: Constraint of the second sec
9/27/2018 11:30 9/27/2018 11:41							72.44											-75.20	
9/27/2018 12:00 9/27/2018 12:02 9/27/2018 12:12	-96.80						-73.41	-00.07											
9/27/2018 12:14 9/27/2018 13:18								-61.8	80									-58.48	
9/28/2018 12:00 10/1/2018 10:59							-125.56			-56.65		-83.20							
10/1/2018 12:00       10/8/2018 12:00													-31.77	-59.64 -75.9 -58.54 -75.0	4 -86.90 4 -84.50	-66.30 -66.10	-98.59     -82.49       -94.09     -80.79		
10/10/2018 12:00       10/15/2018 12:00       10/22/2018 12:00													-31.97 -31.57	-58.64 -75.3	4 -84.50	-94.30	-93.69 -80.59		
11/5/2018 12:00       11/5/2018 12:00							-73.06 -123.01	-17.44		-55.76			-27.57	-57.84 -73.6	4 -81.90	-89.20	-86.89 -77.49		
11/12/2018 12:00       11/19/2018 12:00													-27.97 -27.97	-57.94 -73.1 -58.14 -73.5	4 -105.30 4 -106.10	-89.90 -63.70	-84.90         -77.17           -84.49         -102.69		
11/26/2018 12:00													-28.17	-58.14 -73.7	4 -107.10	-63.70 -63.70	-84.49 -102.69		Image: Constraint of the second sec
12/3/2018     12:00       12/4/2018     12:00			20				-73.08 -122.45	-55.90		-56.99			-28.17	-58.34 -73.9	4		-84.49 -102.89		
12/18/2018 12:00 12/18/2018 11:00		-68.0																	-18.50 -18.50 -10 -10 -10 -10 -10 -10 -10 -10 -10 -1
12/27/2018 9:50 -3 12/27/2018 10:40	7.60											-74.40							
12/27/2018 10:50       12/27/2018 10:53									-48.00									-73.40	
12/27/2018 11:05       12/27/2018 11:37	-76.20																		71.40 -71.4071.
12/27/2018 11:49     12/27/2018 11:52       12/27/2018 12:00     12/27/2018 12:00							-72 86 -121 15	-30 36		-56.95								46.54 47.65	
12/27/2018 12:40 12/31/2018 12:00							, 2.00 -121.15	-65.4	40				-26.90	-57.74 -71.3	4 -103.90	-61.90	-81.79 -102.69		
2/4/2019 12:00							-72.34 -119.33	-43.46		-55.75			-25.77	-57.54 -69.9	4 -103.90	-60.10	-79.49 -102.69		
3/4/2019 11:27       3/4/2019 12:00							-72.45 -119.23	-57.45		-56.90		-75.00	-26.17	-57.94 -69.8	4 -79.70	-60.20	-79.79 -102.69		
3/16/2019 12:00       3/23/2019 12:00       3/28/2019 10:22			-246.00	-246.00															
3/28/2019 11:00 -3 3/28/2019 11:35	7.70											-92.80							
3/28/2019 11:45       3/28/2019 12:00							-72.47 -120.05	-61.90	-48.60	-57.33							-40.60		
3/28/2019 12:48       3/28/2019 12:58																		-74.00	-71.40
3/28/2019 13:05       3/28/2019 13:24	-83.30																	-49.99	
3/28/2019 13:20								_54 0	00										-20.98 -20.9820.9
4/1/2019 12:00 5/6/2019 7:00							-71.69	-54.0					-26.67	-58.04 -72.5	4 -110.70	-61.90	-81.29 -102.69		
5/6/2019 9:50       5/6/2019 10:00							-119.38					-69.80							
5/6/2019 12:00       6/3/2019 12:00							-71.56 -118.24	-4.70 -57.38		-55.69 -55.09			-21.57 -25.07	-56.14 -70.7 -57.34 -78.5	4 -78.50 4 -104.00	-60.90 -59.90	-75.59 -72.49 -79.29 -73.09		
6/5/2019 9:52       6/26/2019 12:00									20	-55.96		-73.20							
6/27/2019 11:35       6/27/2019 11:38								-52.3										-53.88	
6/27/2019 11:40       6/27/2019 12:00							-118 12	-34.76											-22.22 -22.2222.2
6/27/2019 12:05       6/27/2019 12:52												-84.60							
6/27/2019 12:54       6/27/2019 13:04	-81.50																	-73.00	
6/27/2019 13:27       6/27/2019 13:52	7.40																		-71.40



### Clearwater UWCD - Edwards BFZ Monitor Wells

State # 58-05-40 CUWCD # E-02-021	4 58-12-101 58-04-410 P E-02-646G E-08-054P	information through 58-04-408 E-10-005P	h publication of continue 58-05-106 E-13-009P	ous monitoring data on t 58-04-635 E-18-043GU	the measurements of the <sup>-</sup> 58-04-704 E-18-107P	TxDOT wells and an add 58-12-204 E-19-028P	ditional well in Salado, shown ir 58-12-205 58-0 E-19-029P E-19	red. 4-418 58-04-638 •037P E-19-079GL	58-04-639 J E-19-081GU	58-04-363 58-04-7( E-19-113P M-06-00	02 58-04-816 58-04-628 LG M-08-001G M-08-002G	58-13-502 58-04 M-12-014G M-13-	I-502 58-03-702 58-12-203 -004G M-14-001P N1-18-002F	40-61-710 40-60-913 P N1-20-001P N1-20-002P	58-04-623 N2-02-002G	58-04-602 N2-02-003G	58-04-508 58-04-509 58-04-5 N2-02-005G N2-02-007G N2-02-0	10 58-04-626 08GN2-02-009	5 58-04-512 58-04-513 58-04-627 GN2-02-010GN2-02-011G N2-03-004	7 58-04-637 58-04-317 58-04-631 58-05-108 58-04-633 58-04-63 G N2-07-010G N2-10-002P N2-11-004P N2-11-005P N2-15-004P N2-15-005	4 58-05-110 58-05-109 58-04-316 58-04-305 58-04-640 58-04-319 58-04-321 5P N2-15-009P N2-15-010P N2-15-012P N2-17-001P N2-19-007P N2-20-001CN2-21-006FN2-21-009FN2-21-02
Well Name Avila Highest -78.70	Trihn         Young           -210.60         -30.30	Coppin -58.30	Thaler -76.20	Brown -44.20	Edwards -63.90	Yepez -236.40	Yepez Fish -232.05 -36	beck Campbell	Lowry -10.36	Law erson's C -53.80 -69.82	ro: Rest Stop  ado Cemeta -113.20 -4.49	City of Bartlett Salad -37.10 -38	o ISD 3ult - Edwar Windy Meado .30 -53.32 -234.00	ows Dillman Trust Donald & Sheryl Ric -31.70 -54.93	Cł Stagecoach (deep) -66.10	lado WSC (‡a -21.57	alado WSC (#ෲlado WSC (#!lado WS -56.14 -68.64 -60.0	C (‡lado WSC ( ) -58.40	(#CX Ranch (#CX Ranch (#alado ISD (N -75.59 -72.49 -34.60	M:Bloomer Mfg.es Constructarles Broeckes & Terry Boott Law Well aw Well #2-97.10-74.50-67.10-36.70-46.54-45.42	, CLaw Well #6 - Well #7 - Braw Well #9 - Ja₃rt of Texas Fi∕alley Equine >G Propertiilado RV Pa -23.80 -17.95 -19.22 -71.30 -80.00 -69.80 -79.12 -106.00 -86.00
Lowest -93.20 6/27/2019 14:15	-214.50 -39.70	-73.30 -63.90	-128.10	-49.10	-68.00	-246.00	-246.00 -38	3.50 -14.41	-13.08	-87.40 -78.25	-129.44 -89.10	-73.80 -60	.00 -59.10 -248.00	-42.60 -55.61	-106.50	-64.07	-72.74 -92.34 -120.1	0 -97.70	-103.19 -103.21 -50.70	-106.90     -75.00     -78.10     -85.50     -83.60     -83.61	-35.01     -44.35     -47.90     -75.10     -96.80     -70.40     -81.22     -106.00     -86.00
7/1/2019 12:00 7/1/2019 14:00 7/11/2019 11:25										-61.50						-25.37	-57.54 -108.3	0 -60.20	-78.19 -73.69		
7/22/2019 8:10 7/22/2019 8:20										-74.50										-72.67	
7/22/2019 8:31         7/22/2019 8:55         -81.80								40.00												-73.51	
7/22/2019 9:58 7/22/2019 10:00 7/22/2019 10:18								-10.80	-10.36			-48	60								
7/22/2019 10:10 7/22/2019 10:40 7/22/2019 11:36			-101.70																	-74.00	
7/22/2019 11:45 7/22/2019 12:00	-210.60										-119.77 -75.60		-56.70			-26.17	-57.94 -81.54 -109.0	0 -83.20	-85.19         -75.79		Image: Constraint of the second sec
7/22/2019 13:30 7/22/2019 13:35 7/22/2019 14:09																				-71.60 -74.90	-74.70 -74.70
7/22/2019 14:15 7/22/2019 15:00						-240.01														-98.40	
7/22/2019 15:30 7/22/2019 15:35	-37.40	-64.90																			
7/22/2019 16:10 7/23/2019 11:10 7/23/2019 13:25				-44.60			-36	.11					-234.00								
7/23/2019 14:00 7/23/2019 14:45												-58.30			-106.50						
7/24/2019 9:00 7/24/2019 14:30							-236.25												-41.00		
8/5/2019 12:00 8/6/2019 11:45 8/26/2019 15:27											-119.59 -75.26		-56.96		-79.70	-55.67	-69.54 -74.34 -87.1	0 -88.90	-86.09 -76.29		
8/26/2019 17:25 9/3/2019 12:00										-72.16	-121.07 -76.71		-57.45							-76.62	
9/4/2019 12:00 9/11/2019 13:25																-50.77	-70.54 -83.24 -111.3	0 -85.10	-89.09 -78.09	-75.24	
9/11/2019 13:28 9/14/2019 12:00																				-75.23	-80.00
9/25/2019 9:20 9/25/2019 9:40 9/25/2019 10:13					-63.90			.35					-237.80								
9/25/2019 10:18 9/25/2019 10:43	-37.70	-66.10																			
9/25/2019 11:28 9/25/2019 11:59									-12.15						-84.80						
9/25/2019 12:00 9/25/2019 12:02 9/25/2010 12:11								-13.35		-72.27	-122.11 -76.08		20								
9/25/2019 13:14 9/25/2019 13:20												-55							-43.90	-74.90	
9/25/2019 13:23 9/25/2019 13:46				-48.00																	-74.30 -774.30 -777
9/26/2019 14:15 9/26/2019 14:35 -88.20										77.50		-58.20									
9/26/2019 14:45 9/26/2019 14:47 9/26/2019 14:50										-77.50										-73.66 -73.99	
9/26/2019 15:12 9/26/2019 15:19			-124.20																	-36.70	
9/27/2019 12:00 10/9/2019 9:10						-244.40							-57.82								
11/4/2019 12:00 12/2/2019 12:00 12/4/2010 11:42											-122.12 -68.41 -122.73 -67.27		-58.23 -58.42		82.60	-50.77	-70.54 -72.14 -80.8	) -62.70	-83.88 -102.69		
12/27/2019 9:10 12/27/2019 9:27					-64.80								-238.40		-82.60						
12/27/2019 9:50 12/27/2019 9:55	-37.30						-36	5.60													
12/27/2019 11:00 12/27/2019 11:13								-13.24												-99.10 -99.10	Image: Constraint of the second sec
12/27/2019 11:28 12/27/2019 11:41 12/27/2019 12:00									-11.65	-72 59	-123.03		-58.40							-75.20	
12/27/2019 12:10 12/27/2019 12:23				-47.70																	
12/30/2019 0:00 12/30/2019 12:00																-50.67	-72.74 -65.94 -81.1	) -63.50	-84.49         -102.67	Image:	Image: Constraint of the second sec
12/30/2019 12:41 12/30/2019 13:16 12/30/2019 13:19										-57.50		-64.40									
12/30/2019 13:19 12/30/2019 13:21 12/30/2019 13:23										-57.50											
12/30/2019 13:28 12/30/2019 13:32																					-25.88 -22.00 -2
12/30/2019 13:48 12/30/2019 14:10 1/6/2020 10:10			-90.10																44.00	-74.50	
1/6/2020 10:10 1/6/2020 10:21 1/31/2020 11:15							-36	5.90				-52	.20								
2/3/2020 12:00 2/3/2020 12:05										-72.69	-67.56 -123.03		-58.19			-50.87	-69.04 -72.84	-63.70	-84.39 -102.49		
2/4/2020 12:00 2/28/2020 10:10 8/2/2020 11:25															01.40		-81.0				-87.99
3/2/2020 11:25 3/2/2020 12:00 3/5/2020 11:29										-72.76	-122.94		-57.70		-91.40	-50.77	-70.74 -72.74 -80.8	0 -63.40	-84.39 -102.69		
3/30/2020 12:00 4/1/2020 10:31															-78.80	-50.87	-70.74 -73.04 -82.5	0 -63.50	-84.09 -102.69		
4/10/2020 12:00 5/3/2020 2:00										-72.73				-33.00							
5/4/2020 9:52 5/4/2020 12:00 5/26/2020 14:08													-57.15		-84.00	-50.87	-71.14 -83.74 -87.9	) -65.10	-84.49 -102.99		
6/1/2020 12:00 6/15/2020 12:00											-122.63 -65.78		-57.89			-50.77 -64.07	-71.14 -73.54 -86.3 -71.64 -86.94 -92.7	) -63.70 ) -67.50	-88.89 -78.89 -94.29 -81.59		
6/22/2020 12:00 6/23/2020 9:40													-239.40			-50.77	-71.64 -78.24 -91.5	) -67.30	-90.49 -81.29		
6/23/2020 9:59 6/23/2020 10:24 6/23/2020 10:20					-65.70		-37	.40													
6/23/2020 10:29 6/23/2020 11:41 6/23/2020 11:42	-38.20							-13 Δ2	-11.83												
6/23/2020 11:50 6/23/2020 11:55												-52	.60						-43.70		
6/23/2020 12:00 6/23/2020 12:04				-47.10							-123.40 -76.52		-58.17								
6/23/2020 13:22 6/26/2020 12:36 6/26/2020 12:00												-57.00									-71.40
6/26/2020 13:07 -85.00 6/26/2020 13:15			<b> </b>							-76.00											
6/26/2020 13:18 6/26/2020 13:20																				-72.17 -72.21	
6/26/2020 13:25 6/26/2020 13:33																					-44.35 -41.50 -4
6/26/2020 13:47 6/26/2020 14:10 6/29/2020 12:00			-119.70													-50 77	-71.94 -87 5/ -11/ 2	0 -91 50	-87.29 -80.79	-74.80	
7/29/2020 11:00 8/3/2020 9:32															-95.60	-51.00	-71.90				
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Staff measures we	ells quarterly in order to closely monitor	the aquifer levels as pa	irt of our statuatory r information throug	responsibility. The Texa gh publication of contin	s Water Development Bo uous monitoring data or	oard conducted some of th n the measurements of the	e measurements, shov TXDOT wells and an ac	vn in red. The measure dditional well in Salado	ements in blue were taken by the Clearwater staff. The Texas Water Development B o, shown in red.	oard provides										
State # CUWCD #	58-05-404 58-12-101 E-02-021P E-02-6460	1 58-04-410 G E-08-054P	58-04-408 E-10-005P	58-05-106 E-13-009P	58-04-635 E-18-043GU	58-04-704 E-18-107P	58-12-204 E-19-028P	58-12-205 E-19-029P	58-04-418 58-04-638 58-04-639 E-19-037P E-19-079GU E-19-081GU	58-04-363 58-04-702 58-04-816 58-04-628 58-13-502 E-19-113P M-06-001G M-08-001G M-08-002G M-12-014G	58-04-502 58-03-702 M-13-004G M-14-001	58-12-203         40-61-710         40-60-913         58-04-623           N1-18-002P         N1-20-001P         N1-20-002P         N2-02-002G	58-04-602 58-04-508 58-04-509 N2-02-003G N2-02-005G N2-02-007G	58-04-510 N2-02-0080	58-04-626 58-04-512 58-04-513 58-04-627 N2-02-009GN2-02-010GN2-02-011G N2-03-004G	58-04-637 58-04-317 58-04-631 N2-07-010G N2-10-002P N2-11-004P	58-05-108 58-04-633 58-04-634 N2-11-005P N2-15-004P N2-15-005P	58-05-110 58-05-109 N2-15-009P N2-15-010P	58-04-316 58-04-305 58-04-640 N2-15-012P N2-17-001P N2-19-007P	58-04-319 58-04-321 N2-20-001CN2-21-006FN2-21-009FN2-21-010F
Well Name Highest	Avila Trihn -78.70 -210.60	Young	Coppin	Thaler -76.20	Brown -44,20	Edwards	Yepez -236.40	Yepez -232.05	FishbeckCampbellLowry-36.11-10.80-10.36	Law erson's Cro: Rest Stop ado Cemet; City of Bartlett	Salado ISD 3ult - Edwa	r Windy Meadows Dillman Trust Donald & Sheryl Rick Stagecoach (deep)	lado WSC (#alado W	lado WSC (i	lado WSC (#X Ranch (#X Ranch (#alado ISD (MS	Bloomer Mfg.es Constructarles Broeck	es & Terry Boott Law Well aw Well #2, -36.70 -46.54 -45.42	CLaw Well #6 - Well #7 - Bra	w Well #9 - Ja₃rt of Texas F∉alley Equine	)G Propertilado RV Pa -69.80 -79.12 -106.00 -86.00
Lowest	-93.20 -214.50	-39.70	-73.30	-128.10	-49.10	-68.00	-246.00	-246.00	-38.50 -14.41 -13.08	-87.40         -78.25         -129.44         -89.10         -73.80	-60.00 -59.10	-248.00 -42.60 -55.61 -106.50	-64.07 -72.74 -92.34	-120.10	-97.70         -103.19         -103.21         -50.70	-106.90 -75.00 -78.10	-85.50 -83.60 -83.61	-35.01 -44.35	-47.90 -75.10 -96.80	-70.40 -81.22 -106.00 -86.00
8/3/2020 9:33 8/3/2020 9:34													-86.50	-113.50	-90.80					
8/3/2020 9:35 8/3/2020 12:00		-		-		-		-		-72.92 -124.90 -81.18	-58.52				-93.50					
8/7/2020 9:35 8/10/2020 12:00													-50.77 -72.34 -87.19	-114.40	-91.30 -93.69 -82.09					
8/11/2020 9:50 8/11/2020 10:07									.27.50							-74.80				
8/11/2020 10:07		-39.50										242.20								
8/11/2020 10:46 8/11/2020 10:57												-242.20				-106.90				
8/11/2020 11:03 8/11/2020 11:15												-91.00							-96.80	
8/11/2020 11:21 8/11/2020 11:23									-13.08											
8/11/2020 11:50					-49.10										-45.40					
8/11/2020 12:19											-53.80								74.00	
8/11/2020 12:25				-128.10															-74.60	
8/11/2020 12:42 8/11/2020 12:45										-87.40							-83.60			
8/11/2020 12:49 8/11/2020 13:00		-				-											-83.61		-47.90	
8/11/2020 13:07 8/17/2020 0:00	-93.20												-50.77							
8/17/2020 12:00				-				_					-72.64 -87.54	-114.90	-91.90 -94.09 -82.59					
9/7/2020 12:00				_						-72.89 -124.80 -73.87	-57.14		-50.97 -72.74 -89.14	-114.90	-91.70 -94.39 -82.59					
9/9/2020 12:00 9/10/2020 11:13												-87.40	-50.97 -71.54 -75.34	-86.00	-65.70 -86.49 -79.99					
9/14/2020 12:00 9/21/2020 12:00		-				-							-50.97 -71.34 -77.54 -50.97 -71.54 -78.54	-110.30 -110.00	-67.10 -87.29 -80.49 -66.90 -86.49 -80.19					
9/30/2020 10:39						-										-74.80				-70.40
9/30/2020 10:44												-240.80							-71.40	
9/30/2020 11:08						-66.80														
9/30/2020 11:43 9/30/2020 11:48		-39.70							-37.70											
9/30/2020 12:00 9/30/2020 12:08										-73.01 -124.50 -68.21	-57.73					-102.70				
9/30/2020 12:46 9/30/2020 12:48								-	-12.35											
9/30/2020 13:00		-										-84.80								
9/30/2020 13:17 9/30/2020 13:20											-52.60				-43.80					
9/30/2020 13:23 9/30/2020 13:27					-47.00											-75.20				
9/30/2020 13:37 9/30/2020 14:00										-67.60									-90.77	
9/30/2020 14:22	-83.00					-				-64.10										
9/30/2020 14:23				_													-59.41			
9/30/2020 14:36																	-59.10	-30.24		
9/30/2020 14:45 9/30/2020 14:56				-103.90															-27.70	
9/30/2020 15:04 10/5/2020 12:00													-50.87 -69.54 -86.94	-110.70	-67.50 -88.89 -80.59		-85.50			
11/3/2020 10:53						-				-73.09 -124.65 -71.12	-58.64	-86.40								
12/2/2020 10:28		_		_								-85.80					75.20			
12/28/2020 9:26																	-75.20		-74.40	
12/28/2020 10:06 12/28/2020 10:12							-243.60					-241.10								
12/28/2020 10:31 12/28/2020 10:48		-				-66.80			-37.90											
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12/28/2020 11:17 12/28/2020 11:17				_				-				-84.00								
12/28/2020 11:23						-			-14.20											
12/28/2020 12:00 12/28/2020 12:02			-67.50							-73.24 -69.06	-58.75									
12/28/2020 12:29 12/28/2020 12:31						-					-52.80				-44.40					
12/28/2020 12:34 12/28/2020 12:38					-47.60											-74.80				
12/28/2020 13:11 12/28/2020 13:25																			-91.26	
12/28/2020 13:57	-82.30					_				-70.30										
12/28/2020 14:07 12/28/2020 14:10										-ɔʒ.4U							-59.00			
12/28/2020 14:12 12/28/2020 14:18																	-55.58	-26.44		
12/28/2020 14:25 12/28/2020 16:02								-238.65											-26.49	
12/28/2020 17:00 12/29/2020 14:06										-124.90						-74 70				
2/1/2021 12:00										-73.30 -124.72 -61.34	-58.48									
3/2/2021 12:00										-/3.43 -123.0/	-58.6/								-71.40	
3/2/2021 14:42 3/29/2021 10:15												-80.60					-73.80			
3/29/2021 10:33 3/29/2021 10:57												-55.61				-74.50				
3/29/2021 11:07																_74.60			-74.10	
3/29/2021 11:12				-											-42.60	-74.00				
3/29/2021 11:24 3/29/2021 11:39									-38.10		-51.40									
3/29/2021 11:43 3/29/2021 12:00		-37.70								-73.37 -124.77	-58.65		-50.57 -70.54 -75.54	-85.00	-65.80 -86.79 -102.89					
3/29/2021 12:01 3/29/2021 12:21			-67.90			-67.40														
3/29/2021 12:32							-2/13 00					-240.90								
3/29/2021 12:53		_					-243.00									-101.50				
3/29/2021 13:18 3/29/2021 13:36					-45.40														-90.29	
3/29/2021 14:00 3/29/2021 14:21	-82.20									-68.00										
3/29/2021 14:30										-56.30							_52 12			
3/29/2021 14:35				-		-					<u> </u>						-52.78			
3/29/2021 14:40 3/29/2021 14:45																		-21.85	-19.33	
3/29/2021 15:05 3/29/2021 16:22				-89.00				-238.45												
3/29/2021 19:00 3/29/2021 19:02									-12.56											
4/22/2021 10:36																-74.80				
4/22/2021 10:50 4/22/2021 11:03												-241.60							-/1.40	
4/22/2021 11:08 4/22/2021 11:10							-242.80	-238.25												
4/22/2021 11:23 4/22/2021 11:37						-67.00			-38.30											
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### Clearwater UWCD - Edwards BFZ Monitor Wells

Staff measures wells quarterly in	order to closely monitor	r the aquifer levels as par	art of our statuatory resp information through p	onsibility. The Texas W publication of continuou	ater Development Boar s monitoring data on t	ard conducted some of the r the measurements of the Tx	measurements, shown in xDOT wells and an addit	in red. The measurements in blue we tional well in Salado, shown in red.	e taken by the Clearwater staf	f. The Texas Water Development	Board provides														
State # 58-05- CUWCD # E-02-0	04 58-12-10 1P E-02-646	01 58-04-410 5G E-08-054P	58-04-408 E-10-005P	58-05-106 E-13-009P	58-04-635 E-18-043GU	58-04-704 E-18-107P	58-12-204 E-19-028P	58-12-20558-04-418E-19-029PE-19-037P	58-04-638 E-19-079GU	58-04-639 E-19-081GU	58-04-363 E-19-113P	58-04-702         58-04-816         58-04-628         58-13-502         58           M-06-001G M-08-001G M-08-002G         M-12-014G         M	-04-502 58-03-702 58-12-203 13-004G M-14-001P N1-18-002P	40-61-710 40-60-913 N1-20-001P N1-20-002P	58-04-623 N2-02-002G	58-04-602 58-04-50 N2-02-003G N2-02-00	8 58-04-509 6G N2-02-007G	58-04-510 58-04 N2-02-008GN2-02	-626 58-04-512 58-04-513 009GN2-02-010GN2-02-011G	58-04-627 58-04-637 N2-03-004G N2-07-0100	58-04-317 58-04-63 N2-10-002P N2-11-004	. 58-05-108 58-04 P N2-11-005P N2-15	I-633 58-04-63 -004P N2-15-00	4 58-05-110 58-05-109 58-04-316 58-04-305 58-04-640 58 5P N2-15-009P N2-15-010P N2-15-012P N2-17-001P N2-19-007P N2	;8-04-319 58-04-321 2-20-001GN2-21-006FN2-21-009FN2-21-010P
Well Name Avil Highest -78.7	0 Trihn 0 -210.60	Young -30.30	Coppin -58.30	Thaler -76.20	Brown -44.20	Edwards -63.90	Yepez -236.40	Yepez         Fishbeck           -232.05         -36.11	Campbell -10.80	Lowry -10.36	Law -53.80	erson's Cro: Rest Stop ado Cemet: City of Bartlett Sa -69.82 -113.20 -4.49 -37.10	ado ISD iult - Edwar Windy Meadows I 38.30 -53.32 -234.00	illman Trust Donald & Sheryl Rick S -31.70 -54.93	Stagecoach (deep) -66.10	lado WSC (łalado WSC -21.57 -56.14	(#:alado WSC (#: -68.64	lado WSC (‡lado V -60.00 -58	/SC (#X Ranch (#X Ranch (# 40 -75.59 -72.49	alado ISD (MtBloomer Mf -34.60 -97.10	gles Constructarles Broe -74.50 -67.10	ckes & Terry Boott Law -36.70 -46	v Well aw Well #2 .54 -45.42	2, CLaw Well #6 - Well #7 - Braw Well #9 - Jairt of Texas Filley Equine )G -23.80 -17.95 -19.22 -71.30 -80.00	6 Propertilado RV Pa -69.80 -79.12 -106.00 -86.00
Lowest -93.2	0 -214.50	-39.70	-73.30	-128.10	-49.10	-68.00	-246.00	-246.00 -38.50	-14.41	-13.08	-87.40	-78.25 -129.44 -89.10 -73.80	60.00 -59.10 -248.00	-42.60 -55.61	-106.50	-64.07 -72.74	-92.34	-120.10 -97	70 -103.19 -103.21	-50.70 -106.90	-75.00 -78.10	-85.50 -83	.60 -83.61	-35.01 -44.35 -47.90 -75.10 -96.80	-70.40 -81.22 -106.00 -86.00
4/22/2021 11:58		-58.40																		-102.80					
4/22/2021 12:00 4/22/2021 12:04												-73.55 -125.23	-58.60		-84.40	-50.57 -63.54	-75.34	-84.70 -66	30 -87.29 -98.09						
4/22/2021 12:15 4/22/2021 12:17									-14.22	-12.44															
4/22/2021 12:27													52.20							42.20					
4/22/2021 12:30 4/22/2021 12:51					-46.30															-43.30					
4/22/2021 13:05 4/22/2021 13:28												-67.70												-90.92	
4/22/2021 13:47 -82.8	0										E0 20														
4/22/2021 13:59											-59.50											-54	.75		
4/22/2021 14:01 4/22/2021 14:05																							-54.42	-26.70	
4/22/2021 14:10				-96.80																				-27.64	
5/3/2021 12:00				-90.80								-73.52	-58.05			-63.37 -69.64	-74.34	-83.90 -65	10 -92.89 -80.89						
5/3/2021 16:00 5/5/2021 9:57												-125.53			-81.60										
6/28/2021 10:36 6/28/2021 10:51																					-75.00	-71.10			
6/28/2021 11:11 6/28/2021 11:11		-												-54.93							73.00				
6/28/2021 11:32 6/28/2021 11:47												-113.20												-71.40	
6/28/2021 12:00 6/28/2021 12:01													-56.74 -238.20			-32.17 -68.94	-71.94	-81.10 -62	70 -88.89 -78.27						
6/28/2021 12:06 6/28/2021 12:06							-238.80	224.25																	
6/28/2021 12:31						-65.00		-234.25																	
6/28/2021 13:19 6/28/2021 13:27								-37.90				-75.29													
6/28/2021 13:52 6/28/2021 14:00															70.40					-99.70					
6/28/2021 14:11 6/28/2021 14:11									-11.11						-79.40										
6/28/2021 14:23 6/28/2021 14:26													50.80							-41.60					
6/28/2021 14:28 6/28/2021 14:32					-44 20																-74.10				
6/28/2021 14:41					-44.20							-65.36													
6/28/2021 14:49 6/28/2021 15:09												-64.20												-96.67	
6/28/2021 15:30 -81.7 6/28/2021 15:37	0										-70 50														
6/28/2021 15:39 6/28/2021 15:39											70.50											-68	.15		
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9/27/2021 10:25							-242.80						-238.10												
9/27/2021 10:42 9/27/2021 10:53	-213.90	)						-239.45																	
9/27/2021 11:06						-66.80		-28 50																	
9/27/2021 11:25		-30.30						-58.50																	
9/27/2021 11:41 9/27/2021 12:00			-68.10									-73.38 -121.59	-58.39			-50.77 -71.74	-75.64	-107.90 -91	70 -87.59 -78.89	-104.80					
9/27/2021 13:13									-13,35	-12.09															
9/27/2021 13:41													52.40							42.62					
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9/27/2021 13:50 9/27/2021 14:00					-47.50							-81.30													
9/27/2021 14:30												-65.80											65		
9/27/2021 15:05									+													-79	-79.41		
9/27/2021 15:21 9/27/2021 15:27																								-43.70 -40.20	
9/27/2021 15:36 9/27/2021 15:51				-113.90										-41.00											
10/1/2021 14:52 -86.9	0																							-35.01	
11/1/2021 12:00												-73.54 -121.56	-57.33			-50.67 -71.74	-81.14	-105.10 -88	30 -84.09 -77.39						
11/1/2021 13:59 12/6/2021 10:17															-79.90									-74.30	
12/6/2021 10:29 12/27/2021 9:40															-78.60						-74 90				
12/27/2021 9:58									+													-73.30			
12/27/2021 10:10 12/27/2021 10:42														-55.60										-74.10	
12/27/2021 11:00 12/27/2021 11:08							-236.40						-237.10												
12/27/2021 11:12								-232.05																	
12/27/2021 11:35 12/27/2021 11:55						-66.80		-37.80																	
12/27/2021 12:00 12/27/2021 12:06		-37.60	-67.50									-73.67 -121.76	-58.18												
12/27/2021 12:23															-77.40					-97.10					
12/27/2021 13:31										-10.69					-77.40										
12/2//2021 13:33 12/27/2021 13:43									-11.07												-74.40				
12/27/2021 13:48 12/27/2021 14:00					-46.30							-47.04													
12/27/2021 14:08									+															-86.89	
12/27/2021 14:4/ 12/27/2021 15:01 -78.7	0											-65.50													
12/27/2021 15.11											-53.80												.86		
12/27/2021 15:14																							-49.61		
12/27/2021 15:11 12/27/2021 15:14 12/27/2021 15:16 12/27/2021 15:25																								-23.80	
12/27/2021 15:11 12/27/2021 15:14 12/27/2021 15:16 12/27/2021 15:25 12/27/2021 15:30						1			1							1 I	1							-19.22	
12/27/2021 15:11         12/27/2021 15:14         12/27/2021 15:16         12/27/2021 15:25         12/27/2021 15:30         12/27/2021 15:36         12/27/2021 15:47				-83.10																					
12/27/2021 15:11         12/27/2021 15:14         12/27/2021 15:16         12/27/2021 15:25         12/27/2021 15:30         12/27/2021 15:36         12/27/2021 15:47         12/27/2021 16:08         Since Last       8.20	0.60	-7.30	0.60	-83.10 30.80	1.20	0.00	6.40	7.40 0.70	2.28	1.40	16.70	-0.13 -0.20 34.26 0.30	-1.60 -0.85 1.00	-31.70 9.30 -0.67	1.20	0.10 0.00	-5.50	2.80 3.4	0 3.50 1.50	-2.00 7.70	-0.20 0.40	-2.20 29	79 29.80	11.21     22.69     20.98     0.20     9.78	0.60 -2.10
12/27/2021 15:11         12/27/2021 15:14         12/27/2021 15:16         12/27/2021 15:25         12/27/2021 15:30         12/27/2021 15:36         12/27/2021 15:47         12/27/2021 16:08         Since Last       8.20         Historic       3.10	0.60 -3.30	-7.30 -0.20 Keep in mind that th	0.60 -9.20 he Edwards (BF7) is a Kar	-83.10 30.80 0.80 rst aguifer and static w	1.20 -1.70 ater levels are a measu	0.00 1.20 surement of aquifer health in	6.40 9.60 in conjunction with sprin	7.40 0.70 13.95 -1.69 ng flow. The desired future condition	2.28 -0.27	1.40 -0.33	16.70 7.70 2	-0.13         -0.20         34.26         0.30           -2.67         3.04         24.87         -28.40	-1.60 -0.85 1.00 7.60 0.92 10.90 (	-31.70 9.30 -0.67 1.30 0.01	1.20 6.40	0.10 0.00 -15.67 -13.74	-5.50 -5.14	2.80 3.4 -45.10 1. <sup>-</sup>	0         3.50         1.50           0         -0.09         8.61	-2.00 7.70 -3.60 1.30	-0.20 0.40 0.00 2.00	-2.20 29. 0.50 9.6	.79 29.80 54 -3.61	Image: Non-State       Image: Non-State <th< td=""><td>0.60         -2.10         0.00         0.00           0.60         -2.10         0.00         0.00</td></th<>	0.60         -2.10         0.00         0.00           0.60         -2.10         0.00         0.00

TWDB Measurement No Reading Available

spring flow.

Drawdown of Water Level



State #	40-57-902	40-57-903	58-04-103	40-57-905	40-58-201	57-15-903	40-59-302	40-57-906					
	E-02-721G	E-02-722G	E-16-052GU	E-19-224P	M-10-001P	17-CIGCD_Robin	N1-18-003P	N1-19-00/P					
Well Name	McCallum #1	McCallum #2	Fant	R Family Land	СТС	Robinson	Myers	risty & Larry Bick	el				
Highest	-131.20	-131.10	-280.10	-212.47	-77.83	-4.93	-467.55	-164.14	0.00	0.00	0.00	0.00	0.00
Lowest	-177.90	-178.20	-418.80	-237.50	-87.59	-64.19	-483.66	-170.24	0.00	0.00	0.00	0.00	0.00
2/24/1993 0:00			-301.70										ļ
2/8/1994 0:00			-308.25										ļ
1/26/1995 0:00			-280.10										ļ
1/12/1998 0:00			-302.27										·
1/13/1999 0:00			-297.20										
2/19/2004 0:00			-304.70										·
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											·
7/1/2008 0:00	-151.80	-151.50											
1/1/2009 0:00	-145.40	-145.00											
7/1/2009 0:00	-159.60	-159.50											
1/1/2010 0:00	-152.10	-152.00			-87.59	-7.38							
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							
11/1/2011 0:00	-163.80	-164.30			-80.28	-48.35							ļ
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							ļ
10/9/2012 0:00			-332.23										ļ
1/1/2013 0:00	-155.00	-157.30			-81.66	-16.64							L
5/1/2013 0:00	-160.80	-161.30			-82.13	-16.34							L
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							
2/1/2014 0:00	-156.80	-157.70			-82.68	-14.94							
5/1/2014 0:00	-163.00	-162.90			-83.07	-15.95							ļ
8/1/2014 0:00	-169.70	-167.70			-83.56	-15.96							L
11/1/2014 0:00	-165.10	-166.60			-83.42	-21.88							ļ
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				-83.82	-7.72							
4/19/2016 6:00		-157.10											
6/1/2016 0:00						-8.28							



State #	40-57-902	40-57-903	58-04-103	40-57-905	40-58-201	57-15-903	40-59-302	40-57-906					
CUWCD #	E-02-721G	E-02-722G	E-16-052GU	E-19-224P	M-10-001P	17-CTGCD_Robin	N1-18-003P	N1-19-007P					
Well Name	McCallum #1	McCallum #2	Fant	R Family Land	СТС	Robinson	Myers	risty & Larry Bick	el				
Highest	-131.20	-131.10	-280.10	-212.47	-77.83	-4.93	-467.55	-164.14	0.00	0.00	0.00	0.00	0.00
Lowest	-177.90	-178.20	-418.80	-237.50	-87.59	-64.19	-483.66	-170.24	0.00	0.00	0.00	0.00	0.00
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	-153.80											
1/5/2017 0:00					-83.90								
2/6/2017 0:00					-83.92								
3/5/2017 0:00					-83.96								
3/30/2017 0:00	-154.10	-154.40			-84.00								
5/8/2017 0:00					-84.23								
6/4/2017 0:00					-84.21								
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	-161.40			-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	-156.80			-83.31								
12/27/2017 14:14						-13.81							
3/5/2018 0:00						-13.86							
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 14:21					-83.78								
6/3/2018 20:00					-83.99								
6/4/2018 0:00						-11.75							
6/21/2018 11:57		-162.70											
6/21/2018 12:00					-84.21								
6/22/2018 11:53	-162.60												
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								
9/4/2018 12:00						-12.81							



State #	40-57-902	40-57-903	58-04-103	40-57-905	40-58-201	57-15-903	40-59-302	40-57-906					
CUWCD #	E-02-721G	E-02-722G	E-16-052GU	E-19-224P	M-10-001P	17-CTGCD_Robin	N1-18-003P	N1-19-007P					
Well Name	McCallum #1	McCallum #2	Fant	R Family Land	СТС	Robinson	Myers	risty & Larry Bick	el				
Highest	-131.20	-131.10	-280.10	-212.47	-77.83	-4.93	-467.55	-164.14	0.00	0.00	0.00	0.00	0.00
Lowest	-177.90	-178.20	-418.80	-237.50	-87.59	-64.19	-483.66	-170.24	0.00	0.00	0.00	0.00	0.00
9/10/2018 9:30							-477.86						
9/28/2018 12:00					-84.30	-11.83							
9/28/2018 12:14	-165.70												
9/28/2018 12:17		-166.00											
9/28/2018 14:20							-473.69						
10/17/2018 16:07			-410.82										
11/5/2018 12:00					-83.46	-5.69							
12/3/2018 12:00					-83.64	-8.36							
12/26/2018 9:12							-475.93						
12/26/2018 11:24	-157.10												
12/26/2018 11:27		-157.40											
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 9:35							-468.48						
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 9:18							-467.55						
6/26/2019 11:13	-154.10												
6/26/2019 11:16		-154.40											
7/1/2019 12:00						-9.42							
8/5/2019 12:00					-84.81	-11.04							
9/2/2019 12:00						-11.73							
9/3/2019 12:00					-85.08								
9/27/2019 10:00							-473.06						
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							
10/16/2019 11:40				-213.14									
10/18/2019 8:02				-215.47									
10/18/2019 22:02				-212.47									
11/4/2019 12:00					-85.22	-13.56							
12/2/2019 6:00						-13.35							



State #	40-57-902	40-57-903	58-04-103	40-57-905	40-58-201	57-15-903	40-59-302	40-57-906					
	E-02-721G	E-02-722G	E-16-052GU	E-19-224P	MI-10-001P	17-CIGCD_Robin	N1-18-003P	N1-19-007P	1				
well Name	MicCallum #1	NicCallum #2	Fant	R Family Land		Robinson	Niyers	risty & Larry Bick		0.00	0.00	0.00	0.00
Highest	-131.20	-131.10	-280.10	-212.47	-//.83	-4.93	-467.55	-164.14	0.00	0.00	0.00	0.00	0.00
Lowest	-177.90	-178.20	-418.80	-237.50	-87.59	-64.19	-483.66	-1/0.24	0.00	0.00	0.00	0.00	0.00
12/2/2019 12:00					-85.26								
12/26/2019 6:00						-13.80							
12/26/2019 10:11							-473.97						
12/26/2019 12:00					-85.07								
12/26/2019 12:57				-222.86									
12/26/2019 13:20	-158.50												
12/26/2019 13:22		-158.80											
2/2/2020 12:00					-85.10								
2/3/2020 6:00						-14.03							
3/2/2020 6:00						-13.62							
5/4/2020 5:00						-12.01							
5/4/2020 12:00					-84.70								
6/1/2020 12:00					-85.11								
6/2/2020 5:00						-12.07							
6/24/2020 9:28							-474.09						
6/25/2020 5:00						-12.54							
6/25/2020 10:17				-226.63									
6/25/2020 10:34	-171.30												
6/25/2020 10:37		-171.40											
6/25/2020 12:00					-85.38								
8/3/2020 5:00						-13.26							
8/3/2020 12:00					-85.74								
9/7/2020 5:00						-13.53							
9/7/2020 12:00					-84.94								
10/1/2020 12:00					-85.03								
10/2/2020 5:00						-13.28							
10/2/2020 9:02							-483.66						
10/2/2020 10:57	-170.90												
10/2/2020 11:00		-171.30											
10/2/2020 11:15				-233.62									
12/1/2020 12:00					-85.07								
12/2//2020 12:00					-85.07								
12/29/2020 10:30				-235.20									
12/30/2020 13:38	-167.80												
12/30/2020 13:41		-168.00					100.5-						
12/30/2020 14:38							-480.20						
2/1/2021 6:00						-12.46							
3/1/2021 6:00						-12.88							
3/30/2021 10:11				-237.50									
3/30/2021 10:40								-164.14					



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 conducted some of the measurements of the TxDOT wells and an additional well in Salado, shown in red.

State #	40-57-902	40-57-903	58-04-103	40-57-905	40-58-201	57-15-903	40-59-302	40-57-906		
CUWCD #	E-02-721G	E-02-722G	E-16-052GU	E-19-224P	M-10-001P	17-CTGCD_Robin	N1-18-003P	N1-19-007P		
Well Name	McCallum #1	McCallum #2	Fant	R Family Land	СТС	Robinson	Myers	risty & Larry Bickel		r
Highest	-131.20	-131.10	-280.10	-212.47	-77.83	-4.93	-467.55	-164.14	0.00	0.00
Lowest	-177.90	-178.20	-418.80	-237.50	-87.59	-64.19	-483.66	-170.24	0.00	0.00
3/31/2021 5:00						-13.30				
3/31/2021 12:00					-85.49					
3/31/2021 14:53		-170.10								
3/31/2021 15:35							-478.98			
4/2/2021 14:49	-169.90									
5/3/2021 5:00						-13.09				
5/3/2021 12:00					-84.93					
6/29/2021 10:07				-236.56						
6/29/2021 10:38								-165.87		
6/30/2021 12:00					-85.47					
6/30/2021 15:10	-172.90									
6/30/2021 15:12		-173.40								
6/30/2021 16:11							-477.89			
9/2/2021 11:40								-168.11		
9/29/2021 12:00					-85.51					
9/29/2021 14:37								-170.24		
9/29/2021 14:48	-177.90									
9/29/2021 14:50		-178.20								
9/29/2021 16:00							-482.21			
10/13/2021 14:30			-418.80							
11/1/2021 12:00					-85.26					
12/29/2021 12:00					-85.06					
12/29/2021 15:07								-166.48		
12/29/2021 15:18	-171.90									
12/29/2021 15:20		-172.20								
12/29/2021 16:14							-481.40			
Since Last										
Historic										
	E-line Measurement		7	he desired futu	re conditions established	by Clearwater Under	ground Water (	Conservation District	for the Upper T	rinity
	Sonic Measurement		is no mor	e than 155 feet	of drawdown after 50 ye	ars.				Т

average drawdown goal per year is -3.1 feet.

TWDB Measurement No Reading Available 0.00 0.00 0.00 0.00 0.00 0.00

Minimum Number of Measurements:

Ъe

Average Drawdown Drawdown of Water Level Increase of Water Level



Clearwater Underground Water Conservation District

Staff measures wells quarterly in orde State # 58-04-4 CUWCD # E-02-140	to closely monitor the aquifer leve 06 58-04-407 6G E-02-1407G	s as part of our statuatory responsibility. Th 58-04-514 40-60-402 E-02-1409G E-03-444P E-05	e Texas Water Development Board continuous monitoring data on the 58-04-405 40-58- 055P E-05-083P E-06-0	I conducted some of the measurements, shown in red. The measurements in blue were taken by the measurements of the TxDOT wells and an additional well in Salado, shown in red.90358-03-70458-04-10458-03-50458-04-04-04-06-06-06-06-06-06-06-06-06-06-06-06-06-	e Clearwater staff. The Texas Water Development Board provides information through publication of 413 58-04-414 58-04-415 58-04-313 58-02-203 58-04-416 58-02-902 58-04-417 58-03-709 58-02-504 18P E-10-051P E-13-054P E-14-053P E-14-059P E-15-056P E-17-002P E-17-016P E-18-041P E-20-109P E-2	40-57-601 58-02-901 58-03-701 58-02-302 -21-032P M-09-001P M-13-001P M-14-002P M-16-001G	58-09-201 57-16-201 M-17-CTGCD Allen L7-CTGCD Fisc M-17-CTGCD Konecci	57-24-503 58-09-303 58-01-202 40-49-601 58-02-304 58-03-405 M-17-CTGCD Mattingly M-17-TWDB Briggs M-17-TWDB Kempner M-18-TWDB-Cove M-19-002P M-20-001P	58-17-504 40-53-707 58-03-505 40-59-804 40-59-803 40-57-603 58-03-506 58-05-901 M-5811102 M-5817504 N1-09-003P N1-16-001P N1-16-004P N1-16-005P N1-16-006P N1-18-001P N2-02-013G	40-61-407 58-03-503 58-02-101 58-04-314 58-04-315 40-61-408 58-06-708 58-04-705 58-04-706 40-53-708 58-04-707 N2-04-011P N2-07-003G N2-07-006G N2-08-002P N2-10-003P N2-11-003G N2-14-003P N2-19-001P N2-19-002P N2-19-003P N2-20-007G
Well NameH. SprinHighest-373.9Lowest-446.0	gs Finch 0 -370.40 0 -450.80	I. Spring Parl         McLemore         Rub           -313.00         -399.58         -49           -392.00         -495.40         -49	doux         ster (Murpherans Mo           3.20         -281.40         -359.           5.40         -444.49         -440.	nitor \         Brooks         Stephenson         Christian         Sloa           70         -566.00         -346.90         -555.40         -413           60         -722.43         -453.50         -611.50         -468	Eckstrom         Lee         Pedigo         Fratzke         Goodwill         Surgi         Brown         Hiles         George         Mage           20         -336.40         -374.00         -400.10         -287.00         -399.72         -390.00         -403.01         -680.77         -331.00         -333.40         <	Whitis         eras Cove - MValley MonBault - Middle TrinitRiver Ridge Monitor W           -357.90         -295.47         -454.00         -623.72         -254.90           -378.00         -332.98         -523.79         -699.27         -357.80	Allen         Fischer         Konecci           -398.07         -212.38         -386.80           -419.90         -231.78         -398.00	Mattingly         RRR Hensell         Hines Monitor Well           -337.27         -427.76         -81.30         -273.23         -340.76         -512.22           -340.30         -467.09         -107.31         -284.07         -376.07         -519.78	Basey         TenEyck         Laurie Gehring         Richard Ross         Michael Maples         David Cole         Ronald Ham         Joe Jackson         City of Holland           -588.08         -271.23         -422.80         -421.80         -389.43         -381.20         -253.00         -474.53         -17.20           -631.15         -290.22         -440.64         -483.20         -415.78         -418.97         -289.87         -551.34         -66.20	Central Texas Strike ZonKilleen Crushed Stone Vaxdale Cowboy ChurclSalado ISD (HS)CJ EvansUMHBRS MaterialsnTex Acres 1 (WinterowEn Tex Acres 2 (Penney)EveansVictory Rock LLC-305.30-343.30-62.00-288.10-318.20-301.10-696.30-434.47-431.70-440.95-300.00-333.50-476.00-185.90-353.80-357.00-326.30-746.45-441.37-440.82-448.80-454.00
6/8/2001 12:00         1/1/2003 0:00         7/1/2003 0:00         1/1/2004 0:00					Image: state in the state			Image: Constraint of the second sec	Image: Constraint of the system         Image: Constra	Image: Constraint of the state of the st
7/1/2004 0:00         1/1/2005 0:00         7/1/2005 0:00         1/1/2005 0:00					Image: Second se Image: Example second se			Image: Constraint of the second sec	Image: Constraint of the system         Image: Constraint of the system         -28.20         -29.90         -29.90         -29.90         -31.80         -31.80         -36.0	Image: Second
7/1/2006 0:00         9/1/2006 0:00         10/1/2006 0:00				Image: constraint of the second sec	Image: state of the state	Image: second	Image:	Image: second	Image: Constraint of the state of	Image: 10.00Image: 10.00 </td
11/1/2006 0:00         1/1/2007 0:00         2/8/2007 0:00         7/1/2007 0:00		-417.58 -410.92 -399.58	312.60397. 281.40373. 287.20377.	70     70     60       60     -566.00       90     90	Image: state in the state	-265.50 -254.90		Image: Constraint of the system         Image: Consthe system         Image: Constrainton of t	Image: Constraint of the state of	Image: state in the state
1/1/2008 0:00         1/21/2008 0:00         7/1/2008 0:00         8/30/2008 0:00		-410.58 433.42	-290.70 -380. -333.20 -440.	80         -346.90         -           60         -         -	Image: series of the series	-260.50 		Image: Constraint of the system         Image: Consthe system         Image: Constrainton of t	Image: selection of the	-343.30         -343.30         Image: Constraint of the symplety of
1/1/2009 0:00       7/1/2009 0:00       7/1/2009 12:00		-426.67 -445.58	-322.60 -387. -367.40 -368.	90 -368.40 50 -377.40	Image: state of the state	-282.90 -292.20		Image: Constraint of the second sec	Image: state of the state	-376.80       -376.20
1/1/2010 0:00         1/1/2010 12:00         7/1/2010 0:00         7/1/2010 12:00		-429.58 -436.38	-325.30 -361. -344.00 -376.	20 -371.40 - 80 -377.30 -	Image: state in the state	-306.94 -280.10 -295.47 -295.90	Image: Constraint of the second sec	337.38        427.97        84.67	Image: state in the state in	-382.40-382.40-382.40
9/9/2010 0:00 1/1/2011 0:00 1/1/2011 12:00 7/1/2011 0:00		-436.70 -468.16	-333.80 -379. -402.20 -360.	20 -380.10 - 70 -404.50	-341.00       -341.00       Image: Constraint of the second secon	-308.10 -285.40 -313.40 -310.60		-337.42         -430.89         -91.56         -273.58           -338.13         -437.89         -97.59         -273.58	Image: Constraint of the system         Image: Consthe system         Image: Constrainton of t	Image: Constraint of the systemImage: Constraint of the syst
7/1/2011 12:00         9/1/2011 0:00         9/1/2011 12:00         4/4 /2011 0:00			-403.50 -360.	50 -411.00	Image: state of the state	-319.94 -323.80		-274.78         -279.86           -279.86         -279.86	Image: state of the state	Image: State of the state
11/1/2011 0:00       11/1/2011 12:00       1/1/2012 0:00       1/2/2012 12:00		-470.40 -456.93	-356.10 -361.	00     -412.30       00     -402.30	Image: state in the state	-310.05 -318.00 -311.90 -307.00	-408.18 -406.30	-338.50         -444.40         -100.99 <t< td=""><td>Image: state in the state in</td><td>-415.40-415.40-415.40-415.40-415.40-415.40</td></t<>	Image: state in the state in	-415.40-415.40-415.40-415.40-415.40-415.40
5/1/2012 0:00         5/1/2012 12:00         10/10/2012 11:34         1/1/2013 0:00		-456.93 -454.34	-375.60 -360. -369.40 -359.	60 -398.60 -39	Image: state of the state	-309.74 -302.80 -312.56 -301.70	-398.07 -403.08 -218.47	-338.66       -438.81       -92.28       -276.98         -338.83       -446.13       -98.91       -276.98	Image: Constraint of the system         Image: Consthe system         Image: Constrainton of t	-403.90       -403.90       Image: Constraint of the second secon
1/1/2013 12:00         5/1/2013 0:00         5/1/2013 12:00         5/0/2013 0:00		-461.13	-387.70 -365.	80 -411.20 -555.40	Image: Second se Image: Example second se	-311.45 -311.40	-402.45 -218.88	-338.87         -97.72         -279.27	Image: Section of the section of th	Image: state of the state of
8/1/2013 0:00       -421.4         8/1/2013 12:00       -421.4         11/1/2013 0:00       -391.0	0 -424.10 0 -393.80	-364.20 -472.46 -335.90	-416.20 -369. -385.00 -369.	80     -422.20     -568.20       40     -421.70     -572.40	Image: state of the state	-317.87 -478.60 -323.80 -314.73 -472.40 -325.50	-404.83 -225.45 -405.83 -222.98	-338.96         -448.42         -99.63         -281.73         -           -338.99         -100.00         -100.00         -	Image: state of the state of	Image: Constraint of the constra
11/1/2013 12:00         11/9/2013 0:00         2/1/2014 0:00         -383.8         2/1/2014 12:00	0 -386.50	-322.90	-373.60 -368.	50 -416.10 -565.80	-374.00       -374.00       Image: Constraint of the second secon	-311.78 -464.90 -630.00 -320.50	-404.89	-280.36         -280.36           -338.82         -99.77	Image: state in the state in	Image: Construction of the con
2/27/2014 0:00 5/1/2014 0:00 -402.0 5/1/2014 12:00 5/11/2014 0:00	0 -405.50	-335.20 -335.20	-389.30 -373.4	40 -417.80 -572.70	Image: series of the series	-477.40 -313.33 -473.70 -645.00 	-405.21	-338.98         -447.29         -98.87         -276.81         -	Image: Section of the section of th	Image: Note of the systemImage: Note of the syste
8/1/2014 0:00       -409.7         8/1/2014 12:00       -409.7         9/26/2014 0:00       -409.7	0 -413.10	-351.90	-411.00 -373.	50 -425.50 -581.20	Image: Section of the section of th	-314.87 -477.10 -655.90 -336.90	-406.32 -224.91	-339.06     -448.41     -100.09     -277.53       -277.53     -277.53     -277.53	Image: Sector of the sector	-445.80       -445.80       Image: Constant of the second of the
11/1/2014 0:00       -411.2         11/1/2014 12:00	0 -415.10 0 -388.50	-348.80 -324.30	-405.50 -375. -374.40 -370.	90 -678.00 -432.50 -584.40 60 -665.20 -420.60 -568.70	Image: state in the state in	-316.99 -479.80 -650.98 -343.30 -312.52 -468.30 -648.91 -327.90	-407.45 -224.34 -406.51 -223.19	-339.01     -450.72     -101.46     -279.04       -338.90     -449.74     -100.32     -278.56	Image: state in the state in	-333.50-446.50-337.40337.40326.30
1/5/2015 0:00         6/1/2015 0:00         -384.1         6/1/2015 12:00         6/14/2015 0:00	0 -386.30	-324.00	-376.00 -371.	10 -659.20 -415.50 -563.30	-411.60       -411.60       Image: Comparison of the	-307.36 -465.30 -630.83 -320.30	-403.68 -219.65	-443.67     -97.48       -446.92     -446.92	Image: Sector of the sector	-325.20-427.60-318.90-313.20end <t< td=""></t<>
9/1/2015 0:00 9/14/2015 0:00 -411.5 9/14/2015 12:00	D	-352.20	-410.50 -375. -410.50	70     -678.60     -429.00     -582.80	Image: state of the state		-405.49 -223.84	Image: Constraint of the second sec	Image: Sector of the sector	Image: series of the
11/1/2015 0:00         11/19/2015 7:00         11/30/2015 0:00         -387.4         12/4/2015 0:00	0	-327.20	-377.10 -371.	90 -663.80 -423.60 -571.10	-       -425.00       <	-333.10 -313.26 -473.00 -642.10	-405.04 -219.49		Image: state with the state with th	Image: Note of the system of the sy
1/1/2016 0:00         1/1/2016 12:00         1/5/2016 0:00       -382.7         4/1/2016 0:00	0	-319.90	-370.90 -368.	40 -657.20 -421.20 -562.70	Image: state of the state	-307.95 -467.40 -639.33 -324.00	-403.70 -216.98	-445.45         -88.66         Image: Constraint of the second sec	Image: Sector of the sector	Image: Constraint of the system of
4/19/2016 0:00       -374.0         4/19/2016 12:00       -374.0         6/1/2016 0:00       -374.0	0	-316.85	-368.74 -366.	50 -650.00 -413.60 -556.80		-306.26 -459.10 -629.44	-401.55 -214.67 -406.45 -213.65	-443.86         -85.61         -275.49           -442.94         -83.64         -272.22	Image: state of the state	-310.10       -422.27       -310.80       -302.10       Image: Company and the second sec
8/30/2016 0:00         8/30/2016 12:00         9/12/2016 0:00         -374.6	0 -387.10	-469.60 -317.70	-369.90	20 -656.20 -414.30 -557.10	Image: state of the state	-309.65 -461.40 -629.95 -330.90	-408.73 -217.75	275.33        275.33          444.12        87.62          276.92        276.92	Image: Constraint of the constra	Image: Constraint of the systemImage: Constraint of the syste
10/3/2016 0:00         10/6/2016 0:00         10/6/2016 12:00         10/19/2016 0:00				Image: state	Image: state in the state	-307.50 -308.40 -308.40	-409.11 -217.39	-444.33         -88.87         -277.51	Image: selection of the se	Image: selection of the se
10/22/2016 0:00         11/1/2016 0:00         11/1/2016 12:00         11/14/2016 0:00		Image: Constraint of the second of		Image:	Image: series of the series	Image: second	-409.47 -218.21	Image: Constraint of the system of	Image: Second	Image: Second
11/21/2016 0:00 11/22/2016 0:00 12/1/2016 0:00					Image: state of the state		-408.94 -217.98	Image: Constraint of the second sec	Image: Construction of the second	Image: state in the state
12/1/2016 12:00         12/6/2016 0:00         12/28/2016 0:00         12/29/2016 0:00			-364.80 -370.	70	Image: state of the state	-308.32 -633.60	Image: Constraint of the second se	-2//.49         -2//.49	Image: Constraint of the system of the sys	Image: Constraint of the constra
12/30/2016 0:00       -373.9         1/5/2017 0:00       -373.9         1/5/2017 12:00       -373.9         1/11/2017 7:00       -373.9	0 -377.30	-313.00		-650.90 -561.60 -411.30	Image: Constraint of the system of the sy	-458.20         -308.10         -635.50         -326.20	-408.95 -217.68	-444.46         -92.31         -277.10	Image: state in the state	-427.10-176.20-176.20Image: Comparison of the comparison of
1/12/2017 0:00 2/6/2017 0:00 2/6/2017 12:00 2/5/2017 0:00		-459.70			Image: Second se Image: Exact second seco	-306.11 -338.84	-408.49 -218.95	-340.00         -444.40         -92.94         -276.96           -329.80         -444.34         -91.98         -276.96	Image: Second state       Image: Second state<	Image: Constraint of the systemImage: Constraint of the syst
3/5/2017 0:00 3/5/2017 12:00 3/6/2017 0:00 3/28/2017 0:00					Image: state in the state			333.80         44.94         31.90         -277.04         -	Image: state in the state	Image: Construction of the system of the s
3/30/2017 0:00 3/31/2017 0:00 -375.6 3/31/2017 12:00 4/6/2017 0:00	0 -370.40	-459.60 -313.00	-365.20	30 -645.30 -407.20	Image: state in the state in	-304.80 -455.70 -321.90	-407.13 -221.75	-340.30         -444.10         -90.05         -276.73         -           -340.30         -444.10         -90.05         -276.73         -	Image: Section of the section of th	- 416.40161.5
5/8/2017 0:00         5/8/2017 12:00         6/4/2017 0:00         6/4/2017 12:00					Image: select	-304.75 -318.42 -305.41 -623.72 -333.97	-407.31 -217.53 -407.58 -216.77	-340.00         -444.22         -90.18             -340.10         -444.38         -91.49             -340.10         -444.38         -91.49	Image: series of the series	Image: series of the series
6/14/2017 0:00         6/19/2017 0:00         7/6/2017 0:00         -390.2         7/6/2017 12:00	0 -392.80	-335.80	-398.50		Image: Second state       Image: Second state<	-630.74	-408.44 -218.63 -388.09	-339.70         -444.89         -94.02         -280.47	Image: Section of the section of th	Image: Section of the section of th
7/7/2017 0:00 7/24/2017 0:00 8/9/2017 0:00		-469.80	-370.	90 -414.10 -563.10 -656.50	Image: state of the state	-306.37     -454.00     -334.92       -309.02     -634.75     -339.20	-410.60 -225.42 -388.74		Image: Constraint of the constra	Image: Construction of the system of the s
8/9/2017 12:00         9/5/2017 0:00         9/5/2017 12:00         9/5/2017 13:32				Image: Constraint of the second se	Image: state in the state	-309.10 -638.78 -337.44	-224.73	-282.23         -282.23           -445.58         -97.97           -283.05         -283.05	Image: series of the series	Image: Constraint of the system of the sys
9/5/2017 13:58 9/5/2017 14:22 10/2/2017 0:00 10/2/2017 12:00		-475.30	-376.	50 -667.40 -423.60 -574.30	Image: selection of the se	-310.50 -469.50 -338.16	-388.70	-339.80         -446.89         -98.46         -283.60	Image: Section of the section of th	Image: Constraint of the systemImage: Constraint of the syste
10/2/2017 13:34         10/2/2017 13:59         10/2/2017 14:04         10/2/2017 14:23					Image: Second		-222.44	-340.00	Image: Second seImage: Image: I	Image: Constraint of the system of the sys
10/2/2017 11:20         10/3/2017 0:00         -400.4         10/4/2017 0:00         10/19/2017 14:25         10/27/2017 0:00	0 -403.80	-340.60	-397.20	Image: constraint of the second sec	Image: state of the state	Image: state         Image: state<		Store         Image: Construction         Im	Image: state of the state of	Image: Constraint of the system of
10/27/2017 0:00         11/6/2017 0:00         11/6/2017 12:00         11/6/2017 13:35				Image: second	Image: state of the state	-309.61 -644.98 -335.84	Image: Constraint of the second sec	-446.12         -99.03         -282.41         -	Image: series of the series	-444.00-444.00-444.00
11/6/2017 13:59         11/6/2017 14:05         11/6/2017 16:44         12/4/2017 0:00					Image: state of the state	-309.17 -646.20 -335.59	-386.90 -221.69	-339.10         Image: Constraint of the second	Image: selection of the	Image: Constraint of the constra
12/4/2017 13:54         12/4/2017 14:00         12/4/2017 14:06         12/4/2017 16:45							-412.30 -386.90 -220.66	-339.10		
12/20/2017 10:45 12/20/2017 0:00 12/27/2017 0:00 12/27/2017 12:00		-464.20	-371.	90 -663.80 -421.10 -576.10	Image: state of the state	-308.66 -476.40 -334.40		-535.10	Image: Constraint of the systemImage: Constraint of the syst	Image: Constraint of the constra
12/27/2017 13:54         12/27/2017 14:01         12/27/2017 14:06         12/27/2017 16:46							-225.62	-339.30         -339.30 <t< td=""><td>Image: second second</td><td></td></t<>	Image: second	
12/29/2017 0:00       -389.3         1/2/2018 0:00       -389.3         1/12/2018 10:10       -389.3         2/5/2018 0:00       -389.3	J -392.80	-326.30	-378.90		Image: select	-647.15	-413.80 -387.50	Image: Constraint of the second sec	-422.80       -422.80       -47.00         -588.08       Image: Comparison of the second seco	-3U8.5U-44U.8U-322.80-318.20-307.80<
2/5/2018 10:07         2/5/2018 10:08         2/5/2018 10:11         2/5/2018 10:13					Image: state of the state				Image: selection of the	Image: Constraint of the constra
2/5/2018 10:14         2/5/2018 12:00         2/5/2018 15:04         3/5/2018 0:00							-413 30 224 22 200 20	-339.40         -338.90	Image: state of the state	Image: Sector of the sector
3/5/2018 12:00 3/29/2018 0:00 3/29/2018 9:20		-462.90				-309.47 -330.97	-413.70 -224.56 -387.00	-338.90	Image: state of the state	Image: state of the state
3/29/2018 10:25         3/29/2018 10:44         3/29/2018 11:39         3/29/2018 12:00			-378.	20	Image: Sector	-309.69		Image: Constraint of the second sec	Image: Section of the section of th	Image: Section of the section of th
3/29/2018       13:10         3/29/2018       13:38         3/29/2018       14:05         3/29/2018       14:50				-670.10 -670.10 -670.10 -		-479.83		Image: Constraint of the second se	Image: Sector of the sector	Image: Section of the section of th
3/29/2018 15:00 3/29/2018 15:16 3/29/2018 15:35					Image: state of the state			Image: state of the state o	Image: state of the state o	-443.80-443.80Image: Comparison of the system of the
3/29/2018 15:53         3/30/2018 9:37         3/30/2018 9:58         -393.3         3/30/2018 10:00	0 -397.00				-415.4U			Image: Constraint of the second sec	Image: Note of the second se	Image: Constraint of the second sec
3/30/2018 10:45         3/30/2018 11:01         3/30/2018 12:00         3/30/2018 12:05		-329.00	-384.90			-653.69			Image: Note of the second se	Image: Constraint of the system of the sy
3/30/2018 13:06 3/30/2018 14:33 3/30/2018 14:42 3/30/2018 15:00									Image: series of the series	Image: Section of the section of th
4/9/2018 12:00         4/24/2018 14:34         5/7/2018 0:00							-414.50 -222.63 -387.30	-339.20         -339.20         -339.20         -339.20         -339.20		Image: state of the state
5/7/2018 12:00         5/29/2018 15:03         6/3/2018 19:00         6/4/2018 0:00					Image: Sector of the sector	-308.58 -333.69 -310.72	-415.60 -224.31 -387.90	-339.50	Image: Constraint of the second se	Image: Note of the second se
6/4/2018 3:00         6/11/2018 10:20         6/21/2018 9:45         6/21/2018 10:20		-481.20		72		-333.43			Image: Constraint of the second se	Image: Sector of the sector
6/21/2018 10:55 6/21/2018 12:00 6/21/2018 12:10			-380.			-310.87 -337.93		-447.23         -103.16         -281.07	Image: Constraint of the second se	Image: Constraint of the system of
b/21/2018 13:38         6/21/2018 14:25         6/21/2018 15:06         6/21/2018 15:55				-430.00	Image: state of the state	-496.71		Image: Constraint of the second sec	Image: select	Image: Constraint of the second sec
6/22/2018 8:44 6/22/2018 9:20 6/22/2018 9:22 6/22/2018 9:35	0 -425.60		-430.00		Image: selection of the se				Image: selection of the se	-328.68       -328.68       -3000
6/22/2018 9:47 6/22/2018 10:25 6/22/2018 11:28		-367.40			Image: state of the state				Image: Sector of the sector	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
b/22/2018 11:37         6/22/2018 11:57         6/26/2018 8:48         6/26/2018 9:12					Image: selection of the se				Image: select	-507.80-507.80-60
6/26/2018 11:15 6/26/2018 11:35				-587.90						-338.80         -338.80

State #         58-04-406         58-04-407         58-04-514         40-60-402         58-04-405         58-04-405         58-04-415         58-04-313         58-02-203         58-04-416         58-02-902         58-04-416           CUWCD #         E-02-1406G         E-02-1407G         E-02-1409G         E-03-444P         E-05-055P         E-06-063P         E-07-011P         E-08-005P         E-10-013P         E-10-051P         E-13-054P         E-14-053P         E-14-053P         E-15-056P         E-17-002P         E-17-00	17       58-03-709       58-02-504       40-57-601       58-02-901       58-03-701       58-02-302         6P       E-18-041P       E-20-109P       E-21-032P       M-09-001P       M-13-001P       M-14-002P       M-16-001G       M-1         n       Hiles       George       Whitis       eras Cove - Mi/alley Mon ault - Middle Trinit viver Ridge Monitor Wel         1       -680.77       -331.00       -357.90       -295.47       -454.00       -623.72       -254.90	58-09-201         57-16-201           I-17-CTGCD_Allen         L7-CTGCD_Fisc         M-17-CTGCD_Konecci           Allen         Fischer         Konecci           -398.07         -212.38         -386.80	57-24-503         58-09-303         58-01-202           M-17-CTGCD_Mattingly         M-17-TWDB Briggs         M-17-TWDB Kempne           Mattingly         -337.27         -427.76         -81.30	40-49-601         58-02-304         58-03-405         58-03-505         40-59-804         40-59-803         40-57-603         58-03-506           M-18-TWDB-Cove         M-19-002P         M-20-001P         M-5811102         M-5817504         N1-09-003P         N1-16-001P         N1-16-005P         N1-16-006P         N1-16-006P         N1-16-006P         N1-16-006P         N1-16-006P         N1-16-006P         N1-16-006P         N1-16-006P         Joe Jackson           -273.23         -340.76         -512.22         -588.08         -271.23         -422.80         -421.80         -389.43         -381.20         -253.00         -474.53	58-05-901       40-61-407       58-03-503       58-02-101       58-04-314       58-04-315         N2-02-013G       N2-04-011P       N2-07-003G       N2-07-006G       N2-08-002P       N2-10-003P         City of Holland       :entral Texas Strike Zon       Killeen Crushed Stone       Vaxdale Cowboy Church       Salado ISD (HS)       CJ Evans         -17.20       -305.30       -343.30       -62.00       -288.10       -318.20	40-61-408         58-06-708         58-04-705         58-04-706         40-53-708         58-04-707           N2-11-003G         N2-14-003P         N2-19-001P         N2-19-002P         N2-19-003P         N2-20-007G           UMHB         RS Materials         nTex Acres 1 (WinterowCenTex Acres 2 (Penney)         Eveans         Victory Rock LLC           -301.10         -696.30         -434.47         -431.70         -440.95         -300.00
Lowest       -446.00       -450.80       -490.00       -490.40       -440.40       -440.40       -420.40       -460.20       -430.40       -430.40       -440.40       -440.40       -440.40       -440.40       -440.40       -440.40       -460.20       -460.20       -430.40       -430.40       -440.40       -440.40       -440.40       -440.40       -440.40       -440.40       -440.40       -440.40       -440.40       -450.40       -450.40       -450.40       -450.40       -450.40       -450.40       -440.40       -440.40       -440.40       -440.40       -440.40       -440.40       -440.40       -450.40	2       -698.13       -333.40       -378.00       -332.98       -523.79       -699.27       -357.80         - <td< th=""><th>-419.90 -231.78 -398.00 -416.70 -223.83 -398.00</th><th>-340.30 -467.09 -107.31 -339.40 -339.40</th><th>-284.07       -376.07       -519.78       -631.15       -290.22       -440.64       -483.20       -415.78       -418.97       -289.87       -551.34         Image: Comparison of the system of</th><th>-66.20       -333.50       -476.00       -185.90       -353.80       -357.00         Image: Constraint of the second second</th><th>-326.30       -746.45       -441.37       -440.82       -448.80       -454.00   <!--</th--></th></td<>	-419.90 -231.78 -398.00 -416.70 -223.83 -398.00	-340.30 -467.09 -107.31 -339.40 -339.40	-284.07       -376.07       -519.78       -631.15       -290.22       -440.64       -483.20       -415.78       -418.97       -289.87       -551.34         Image: Comparison of the system of	-66.20       -333.50       -476.00       -185.90       -353.80       -357.00         Image: Constraint of the second	-326.30       -746.45       -441.37       -440.82       -448.80       -454.00 </th
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\$20/2018 15:17       Image: Constraint of the constraint of th	Image: selection of the se			Image: Constraint of the system of	-48.35       -48.35       -345.00         -48.35       -48.35       -334.60	Image: Constraint of the system         Image: Consthe system         Image: Constrainton of t
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	JAMEJA	.412.40.213.66.387.60		1     1 </td <td></td> <td>J1.4       J1.4         J1.5.0       J1.4         J1.5.10       J1.4         J1.5.10       J1.5         J1.5.10       J1.6         J1.5.10       J1.6</td>		J1.4       J1.4         J1.5.0       J1.4         J1.5.10       J1.4         J1.5.10       J1.5         J1.5.10       J1.6
	1     3.10     46.3     34.30     46.3     34.30     1       1     3.16     3.16     3.16     3.16     3.16     1       1     3.16     3.16     3.16     3.16     3.16     3.16     1       1     1     1     3.16     3.16     3.16     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1       1     1     1     1     1     1     1     1 <td>.412.40.213.66.387.60</td> <td></td> <td>JUM     Interm     Interm</td> <td></td> <td>Job 2    Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2   Job 2      Job 2</td>	.412.40.213.66.387.60		JUM     Interm		Job 2    Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2    Job 2      Job 2    Job 2    Job 2    Job 2   Job 2      Job 2

Staff measures wells quarterly in order to closely mState #58-04-406CUWCD #E-02-1406GWell NameH. SpringsHighest-373.90Lowest-446.00	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 bl continuous monitoring data on the measurements of the TxDOT wells and an additional well in Salado, shown in red.58-04-40758-04-51440-60-40258-04-40540-58-90358-03-70458-04-10458-03-504E-02-1407GE-02-1409GE-03-444PE-05-055PE-05-083PE-06-063PE-07-011PE-08-005PE-10-003PFinch1. Spring ParlMcLemoreRubidoux :ster (Murpherans Monitor VBrooksStephensonChristian-370.40-313.00-399.58-493.20-281.40-359.70-566.00-346.90-555.40-450.80-392.00-495.40-496.40-444.49-440.60-722.43-453.50-611.50	were taken by the Clearwater staff. The Texas Water Development Board provides information through publication of services.         58-04-413       58-04-414       58-04-415       58-04-313       58-02-203       58-04-416       58-02-902       58-04-417       58-03-709       58-02-504       40-57-601       58-02-901         E-10-018P       E-10-051P       E-13-054P       E-14-053P       E-14-053P       E-14-059P       E-15-056P       E-17-002P       E-17-016P       E-18-041P       E-20-109P       E-21-032P       M-09-001P       M-13-001P         Sloan       Eckstrom       Lee       Pedigo       Fratzke       Goodwill       Surgi       Brown       Hiles       George       Whitis       eras Cove - MValley More         -413.20       -336.40       -374.00       -400.10       -287.00       -399.72       -390.00       -403.01       -680.77       -331.00       -357.90       -295.47       -454.00         +468.23       -468.23       -461.81       -463.23       -461.76       -447.752       -698.13       -333.40       -378.00       -332.98       -523.79	58-03-701       58-02-302       58-09-201       57-16-201       57-24-503       58-09-303       58-01-202       40-49-601       58-02-304       58-03-405       58-17-504         M-14-002P       M-16-001G       M-17-CTGCD_Allen       I-7-CTGCD_Fisc       M-17-CTGCD_Konecci       M-17-CTGCD_Mattingly       M-17-TWDB Briggs       M-17-TWDB Kempner       M-18-TWDB-Cove       M-19-002P       M-20-001P       M-5811102       M-5817504         Gault - Middle Trinit®iver Ridge Monitor Wel       Allen       Fischer       Konecci       Mattingly       Mattingly       M-17-776       -81.30       -273.23       -340.76       -512.22       -588.08       -271.23         -699.27       -357.80       -419.90       -231.78       -398.00       -337.07       -427.76       -81.30       -273.23       -340.76       -512.22       -588.08       -271.23         -699.27       -357.80       -419.90       -231.78       -398.00       -337.07       -467.09       -107.31       -284.07       -376.07       -519.78       -631.15       -290.22	40-53-707       58-03-505       40-59-804       40-59-803       40-57-603       58-03-506       58-05-901         N1-09-003P       N1-16-001P       N1-16-004P       N1-16-005P       N1-16-006P       N1-18-001P       N2-02-013G         Laurie Gehring       Richard Ross       Michael Maples       David Cole       Ronald Ham       Joe Jackson       City of Holland         -422.80       -421.80       -389.43       -381.20       -253.00       -474.53       -17.20         -440.64       -483.20       -415.78       -418.97       -289.87       -551.34       -66.20	40-61-407       58-03-503       58-02-101       58-04-314       58-04-315       40-61-408       58-06-708       58-04-705       58-04-706       40-53-708       58-04-707         N2-04-011P       N2-07-003G       N2-07-006G       N2-08-002P       N2-10-003P       N2-11-003G       N2-14-003P       N2-19-001P       N2-19-002P       N2-19-003P       N2-20-007G         Central Texas Strike Zon (Killeen Crushed Stone Vaxdale Cowboy Churct       Salado ISD (HS)       CI Evans       UMHB       RS Materials       nTex Acres 1 (Winterowen Tex Acres 2 (Penney)       Eveans       Victory Rock LLC         -305.30       -343.30       -62.00       -288.10       -318.20       -301.10       -696.30       -434.47       -440.82       -440.85       -300.00         -333.50       -476.00       -188.90       -333.80       -337.00       -326.30       -746.45       -441.37       -440.82       -448.80       -454.00	
12/27/2019 13:20       12/27/2019 13:53       12/27/2019 21:48       12/30/2019 9:40	House         Solution         House	400.25       401.01       450.16       450.16       450.16       450.15       555.46       576.66       552.56       525.75         1	CSALA	Head         Head <th< td=""><td>333.30         470.00         103.30         357.00         520.30         740.45         441.57         440.62&lt;</td></th<>	333.30         470.00         103.30         357.00         520.30         740.45         441.57         440.62<	
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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

itate # CUWCD # Vell Name lighest owest	58-04-406 E-02-1406 H. Spring -373.90 -446.00	5 58-04-4 G E-02-140 s Finch -370.4 -450.8	407       58-04-514         07G       E-02-1409G         h       -1. Spring Park         40       -313.00         80       -392.00	40-60-402 E-03-444P E-05-0 McLemore Rubio -399.58 -493 -495.40 -496	58-04-405 -055P E-05-083P idoux ester (Murphera 03.20 -281.40 16.40 -444.49	40-58-903 E-06-063P rans Monitor V -359.70 -440.60	58-03-704 E-07-011P Brooks -566.00 -722.43	58-04-104     58       E-08-005P     E-       Stephenson     C       -346.90     -       -453.50     -	8-03-504 58- -10-003P E-1 Christian S -555.40 -4 -611.50 -4	8-04-413         58-04-41           10-018P         E-10-051           Sloan         Eckstron           -413.20         -336.40           -468.23         -461.81	14 1P 0m 0 1	58-04-415 E-13-054P Lee -374.00 -453.93	58-04-313 E-14-053P Pedigo -400.10 -430.10	58-02-203       58-04-4         E-14-059P       E-15-05         Fratzke       Goodw         -287.00       -399.7         -307.70       -447.0	16 58-02-9 6P E-17-00 vill Surgi 2 -390.0 0 -431.7	2 58-04-417 2P E-17-016P Brown -403.01 -457.52	58-03-709 E-18-041P Hiles -680.77 -698.13	58-02-504 E-20-109P George -331.00 -333.40	E-21-032P Whitis -357.90 -378.00	40-57-601 58-02 M-09-001P M-13 eras Cove - Mivalley -295.47 -454 -332.98 -523	02-901 58-03-701 3-001P M-14-002P ey Mon ault - Middle Trin 54.00 -623.72 23.79 -699.27	58-02-302 M-16-001G nit≀iver Ridge Monitor \ -254.90 -357.80	58-09-201 M-17-CTGCD_A Wel Allen -398.07 -419.90	57-16-201 Allen L7-CTGCD_Fisc M- Fischer -212.38 -231.78	И-17-СТGCD_Копессі Копессі -386.80 -398.00	57-24-503 M-17-CTGCD_Mattingly Mattingly -337.27 -340.30	58-09-303 M-17-TWDB Briggs M -427.76 -467.09	58-01-202 M-17-TWDB Kempner -81.30 -107.31	40-49-601 M-18-TWDB-Cove -273.23 -284.07	58-02-304 M-19-002P RRR Hensell -340.76 -376.07	58-03-405 M-20-001P Hines Monitor Wel -512.22 -519.78	M-5811102 I Basey -588.08 -631.15	58-17-504 M-5817504 TenEyck -271.23 -290.22	40-53-707 N1-09-003 Laurie Gehri -422.80 -440.64	7 58-03-505 3P N1-16-001 ing Richard Ro -421.80 -483.20	05     40-59-804       1P     N1-16-004P       oss     Michael Map       0     -389.43       0     -415.78	40-59-80 P N1-16-005 David Col -381.20 -418.97	03 40-57-6 05P N1-16-00 01e Ronald H 0 -253.0 7 -289.8	03 58-03-506 16P N1-18-001P am Joe Jackson 0 -474.53 7 -551.34	58-05-90 N2-02-01 City of Hol -17.20 -66.20	901         40-61-407           913G         N2-04-011P           olland         central Texas Strik           0         -305.30           0         -333.50	7 58-03-503 P N2-07-0030 ke Zon( Killeen Crushed -343.30 -476.00	58-02-101 G N2-07-006G Stone Vaxdale Cowboy C -62.00 -185.90	58-04-314 N2-08-002P Churct Salado ISD (HS) -288.10 -353.80	58-04-315 N2-10-003P CJ Evans -318.20 -357.00	40-61-408 N2-11-003G UMHB -301.10 -326.30	58-06-708 N2-14-003P RS Materials -696.30 -746.45	58-04-705 N2-19-001P nTex Acres 1 (Winterow -434.47 -441.37	58-04-706 N2-19-002P enTex Acres 2 (Penney) -431.70 -440.82	40-53-708       58-04-         N2-19-003P       N2-20-         Eveans       Victory R         -440.95       -300         -448.80       -454	707 007G Rock LLC 0.00 4.00
6/29/2021 16:03 6/29/2021 16:29 6/29/2021 17:07 6/29/2021 18:31 6/29/2021 22:31					-410.68				-4	-443.93		-424.92																												-63.42	2					-315.40					
5/29/2021 23:49 5/30/2021 5:07 5/30/2021 12:37 7/1/2021 9:42							-716.15			-387.75	5					-427.33																						-279.2	3												
3/25/2021 11:15 9/28/2021 8:40 9/28/2021 9:17 9/28/2021 9:24 9/28/2021 10:14				-495.40															-370.00																	-415.78		200.0	7						-348.84						
/28/2021 10:14 /28/2021 10:43 /28/2021 11:07 /28/2021 11:20 /28/2021 11:46																				-51:	11.76										-517.63							-205.0					-185.70				-746.45				
/28/2021 12:00 /28/2021 12:28 /28/2021 12:30 /28/2021 12:46																-449.51				-332.98	-699.27						-466.83	-107.31							-483.20	)			-551.34					252.00							
)/28/2021 13:35 )/28/2021 13:48 )/28/2021 13:54 )/28/2021 14:11 )/28/2021 14:32	-439.00		-374.00																-378.00																									-352.80				-441.37			
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1/1/2021 13:30 1/3/2021 12:00 2/6/2021 10:00 2/6/2021 10:57 2/7/2021 2:18																		222.40			-696.57																					-469.30 -470.40								-444	4.20
2/28/2021 2:18 2/28/2021 3:59 2/28/2021 8:35 2/28/2021 8:51 2/28/2021 9:32				-484.70			-718.98		-4	-442.46								-333.40																				-288.8	2												
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2/28/2021 10:4 2/28/2021 10:5 2/28/2021 11:0 2/28/2021 11:4 2/28/2021 12:0	0 9 5 8 0			-493	03.20															-331.63	-694.48						-466.70	-105.99	-278.48		-519.78																-744.20				
2/28/2021 12:1 2/28/2021 12:2 2/28/2021 12:4 2/28/2021 13:2 2/28/2021 13:2	4 5 0 6 8													-303.95		-425.14																			-474.33	3			-474.53			-467.70		-343.60							
2/28/2021 13:4 2/28/2021 13:5 2/28/2021 14:1 2/28/2021 14:4	7 -417.60 4 2 7		-352.20															-331.00																						-65.14	4										
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2/28/2021 20:2 2/28/2021 20:5 2/28/2021 21:3 2/28/2021 21:4	8 7 8 3				-408.82					-336.40	0			-419.3	9		-698.13																																		
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	E-line Measureme Sonic Measureme TWDB Measureme	nt nt		The desired	l future conditions esta Middle Trinity is <b>The ave</b>	blished by Clearwater s no more than 286 fe erage drawdown goal	r Underground Water C eet of drawdown after . <b>I per year is -5.72 feet</b> .	Conservation District for t 50 years. •	the		withinu	Average Drawdow Drawdown of Water Le	wn -3.93 ft/yr																																						

TWDB Measurement Air line Measurement No Reading Available

Drawdown of Water Level Increase of Water Level

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State #	the measurements of the TxDOT wells as part of our statuatory responsibility. The Texas water Development Board conducted some of the measurements, shown in red. The measurements of the TxDOT wells and an additional well in Salar 58-03-410 58-03-411 40-57-602 40-62-501 40-54-701 40-61-509 4 E 20 120P E 23 005P E 23 005P E 23 007P M 09 002P M 13 005C M	urements in blue were taken by the Clearwater staff. The Texas water Development Board provides information throu         ado, shown in red.         10-53-405       40-35-404       58-02-303       58-10-303         4 12 0296       4 17 CTGCD, Carlilly M 18 TWDB, Catocyillo M 19 001B       M 5910202	58-17-902 58-29-603	58-03-404	58-02-505 58-06-102 40-53-406	58-05-202 40-63-501	40-62-401 58-06-301	58-05-502	40-53-507 58-06-201	58-04-203	58-06-202 40-54-201 58-03-406 58-03-407	58-03-408 58-03-409	58-02-601
Well Name Highest Lowest	L-20-1207L-22-0007L-22-0077IM-05-0027IM-15-0054IM-15-0074IM-15-0074IMIlman Valley Ranchettes Well tillman Valley Ranchettes Well #Copperas Cove - LowerAcres-City of Temple #1Irley-City of Temple Ridge-City of Temple-Tangle-580.40-368.41-373.16-290.13-136.13-259.00-31.00-580.40-375.38-374.18-302.65-377.94-497.02-279.81	Image: Sign of the second method me	Westwood Boys Ranch         City of Taylor #3           -220.40         -37.90           -384.20         -211.57	Justin Scott -353.59 -371.82	Gary Kelley         Bell Co. WCID #2         Moffat WSC #1           -366.61         -36.00         -329.70           -389.72         -276.02         -583.70	N2-02-024G         N2-02-034G           Armstrong WSC #1         East Bell WSC #1           -245.80         -217.45           -277.10         -307.54	N2-03-0010         N2-04-010F           en. TX Vet. Hospit         East Bell WSC #2           -404.70         -268.00           -429.03         -378.00	Armstrong WSC #2 -305.80 -373.10	M2-13-001rN2-13-002rMoffat WSC #2Trinity Oasis LLC (Jack Hilliard Dozer and Materials)-355.00-173.40-596.70-203.60	CTWSC Doc Curb -417.08 -485.03	N2-14-003F         N2-13-002F         N2-20-002F         N2-20-003F           CTWSC System Split Well         City of Troy #2         Hines Texas, LLC #1         Hines Texas, LLC #2           -179.11         -465.29         -348.35         -389.81           -225.60         -466.15         -373.58         -404.01	Hines Texas, LLC #3         Hines Texas, LLC #4           -377.12         -398.05           -386.44         -398.27	Nathan & Danielle McNea -415.20 -415.20
3/1/1952 0:00 9/30/1955 0:00 12/29/1961 0:00 1/8/1965 12:00	Image: Sector of the sector	Image: second	-37	7.9	-50 -36								
3/21/1966 12:00 8/30/1966 12:00 9/1/1966 0:00	Image: series of the	Image: state         Image: state<	293.45 -40.5	57 03									
9/28/1966 12:00 11/3/1966 12:00 11/23/1966 12:00 3/24/1967 12:00	Image: second se		309.05	2.3									
5/4/1967 12:00 6/8/1967 12:00 11/9/1967 12:00	Image: series of the		303.46 306.45 302.15										
12/8/196/12:00 2/16/1968 12:00 3/13/1968 12:00 3/19/1968 12:00	Image: style="text-align: left;">Image: style: style="text-align: left;">Image: style="text-align: left;">Ima		295.29 289.96 -45.9	95									
5/7/1968 12:00 6/1/1968 0:00 3/5/1969 12:00 2/18/1969 12:00	Image: second		292.36 293.17 49.4	40									
9/30/1969 12:00 9/30/1969 12:00 10/23/1969 12:00 11/25/1969 12:00	Image: state in the state	Image: state         Image: state<	-49.2 -310.5 216.75 293.15	49	Image: state         Image: state<								
12/22/1969 12:00 1/26/1970 12:00 3/4/1970 12:00 3/20/1970 12:00	Image: second se		296.49	27									
4/14/1970 12:00 6/5/1970 0:00 7/7/1970 12:00	Image: series of the	Image: Constraint of the second sec	-220.4 290.97 308.59										
9/3/19/0 12:00 10/2/1970 12:00 11/3/1970 12:00 12/8/1970 12:00	Image: series of the		308.75       198.46       199.85       13.15										
1/8/1971 12:00 2/5/1971 12:00 3/21/1971 12:00 3/23/1971 12:00	Image: Second se Image: Expect second sec		313.65	l.1							Image: Constraint of the second sec		
3/25/1971 12:00 3/25/1971 12:00 4/9/1971 12:00 5/11/1971 12:00	Image: series of the	Image: Constraint of the second sec	-232.15 314.87 319.15										
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4///19/2 12:00 6/2/1972 12:00 10/3/1972 12:00 12/5/1972 12:00	Image: series of the		313.15										
1/9/1973 12:00 3/13/1973 12:00 3/15/1973 12:00 5/8/1973 12:00	Image: Second	Image: Constraint of the second sec	-317.2 319.77 	04									
6/5/1973 12:00 8/6/1973 12:00 11/2/1973 12:00	Image: state stat		315.5       316.75       -317.1       317.15										
1/8/1974 12:00 1/14/1974 0:00 3/18/1974 12:00 3/19/1974 12:00	Image: second se Second second seco	-268.60	-223.85	02									
5/29/1975 12:00 3/10/1976 12:00 3/11/1976 12:00	Image: series of the		-76.9 -24.05	93									
3/29/1976 12:00 3/16/1977 12:00 3/17/1977 12:00 3/1/1978 0:00	Image: second	Image: Constraint of the second sec	-248.15 329.25 -245.72 -87.8	89									
4/12/1978 12:00 3/23/1979 12:00 3/29/1979 12:00 2/18/1080 12:00	Image: second se		-268.1 341.41 -105 -256.75 260.15	5.6									
3/18/1980 12:00 3/20/1980 12:00 4/3/1981 12:00 5/13/1983 12:00	Image: state in the state	Image: second	-269.15 -111.8 -281.85 -110.4 -288.85	82 43	Image: state         Image: state<								
3/9/1984 12:00 3/13/1984 12:00 6/1/1984 12:00 9/10/1984 12:00	Image: second se	Image: state         Image: state<	-410.2 -298.37 -168.2 -173.9	29									
3/18/1985 12:00 4/29/1986 12:00 5/13/1986 12:00	Image: series of the		-306 -387.1 -307.85										
5/14/1986 12:00 4/21/1987 12:00 4/22/1987 12:00 8/19/1988 12:00	Image: series of the	Image: Constraint of the second sec	-165.8 107.89 -307.68 -170.0 124.06	04									
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1/30/1992 12:00 2/7/1992 12:00 2/10/1992 12:00	Image: state stat		-290.55 -179.6	65									
1/15/1993 12:00 2/24/1994 12:00 11/9/1994 12:00 11/10/1994 12:00	Image: second se		-306 -311.65 -186.2 -315.2 -187	25									
7/31/1995 12:00 1/21/1996 12:00 1/26/1996 12:00	Image: second se		-311.2 -181	1.7									
8/5/1996 12:00 8/7/1996 12:00 11/5/1996 12:00	Image: state of the state of		-335.5 -197.7	75									
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1/12/2001 12:00 5/5/2001 12:00 6/5/2001 12:00	Image: state of the state of		-316.75 -169.2 -169.2	28									
7/5/2001 12:00 8/5/2001 12:00 9/5/2001 12:00 10/5/2001 12:00	Image: Sector of the sector		-169.2 -169.2 -169.4 -169.4	25 28 42 46									
11/5/2001 12:00 12/5/2001 12:00 1/5/2002 12:00	Image: state in the state		-170.2 -170.8 -170.8 -170.8 -170.8	89 81 88									
1/16/2002 12:00 2/5/2002 12:00 3/5/2002 12:00			-315.75 -171.2 -171.2	21									

e were taken by the Clearwater staff.	The Texas Water Development Board provides information through publication of continuous monitoring data on
d	



Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility State # 58-03-410 58-03-411	<ul> <li>The Texas Water Development Board conducted some of the measurements, shown in red. The measurements in blue were taken by the Clearwater staff. The Tex the measurements of the TxDOT wells and an additional well in Salado, shown in red.</li> <li>40-57-602</li> <li>40-62-501</li> <li>40-54-701</li> <li>40-61-509</li> <li>40-53-405</li> <li>40-35-404</li> <li>40-60-602</li> <li>40-60-602</li> <li>40-60-602</li> <li>40-60-602</li> <li>40-60-602</li> <li>40-60-602</li> <li>40-50-602</li> <li>40-502</li></ul>	The second provides information through publication of continuous monitoring data on 58-02-303 58-10-303 58-17-902	58-29-603	58-03-404	58-02-505 58-06-102	40-53-406	58-05-202	40-63-501 40-62-401	58-06-301	58-05-502 40-53-507 58-06-201	58-04-203	58-06-202	40-54-201 58-03-406 58-03-407	58-03-408 58-03-409 58-02-601
CUWCD #E-20-120PE-22-006PE-22-007PWell NameIlman Valley Ranchettes Welltillman Valley Ranchettes Well #Highest-580.40-368.41-373.16Lowest-580.40-375.38-374.18	M-09-002P         M-13-005G         M-13-006G         M-13-007G         M-13-039G         //-17-CTGCD_Carlil         M-18-TWDB-Gatesville           Copperas Cove - Lower         Acres-City of Temple #1         rley-City of Temple         Ridge-City of Temple         Temple </th <th>M-19-001P         M-5810303         M-5817902           RRR Hosston         City of Florence         Westwood Boys Ranch           -293.99         -289.96         -220.40           -315.89         -588.72         -384.20</th> <th>M-5829603 City of Taylor #3 -37.90 -211 57</th> <th>N1-18-004P Justin Scott -353.59 -371.82</th> <th>N1-19-003P         N2-02-001G           Gary Kelley         Bell Co. WCID #2           -366.61         -36.00           -389.72         -276.02</th> <th>N2-02-022G Moffat WSC #1 -329.70 -583 70</th> <th>N2-02-024G Armstrong WSC # -245.80 -277 10</th> <th>N2-02-034G N2-03-001G 1 East Bell WSC #1 en. TX Vet. Hospit -217.45 -404.70 -307 54 -429 03</th> <th>N2-04-010P East Bell WSC #2 -268.00 -378.00</th> <th>N2-10-001P         N2-13-001P         N2-13-002P           Armstrong WSC #2         Moffat WSC #2         Trinity Oasis LLC (Jack Hilliard Dozer and Materials)           -305.80         -355.00         -173.40           -373.10         -596.70         -203.60</th> <th>N2-14-004P CTWSC Doc Curb -417.08</th> <th>N2-14-005P CTWSC System Split Well -179.11 -225.60</th> <th>N2-15-002P         N2-20-002P         N2-20-003P           City of Troy #2         Hines Texas, LLC #1         Hines Texas, LLC #2         I           -465.29         -348.35         -389.81         -404.01</th> <th>N2-20-004P         N2-21-004P         N2-21-005P           Hines Texas, LLC #3         Hines Texas, LLC #4         Nathan &amp; Danielle McNeal           -377.12         -398.05         -415.20           -386.44         -398.27         -415.20</th>	M-19-001P         M-5810303         M-5817902           RRR Hosston         City of Florence         Westwood Boys Ranch           -293.99         -289.96         -220.40           -315.89         -588.72         -384.20	M-5829603 City of Taylor #3 -37.90 -211 57	N1-18-004P Justin Scott -353.59 -371.82	N1-19-003P         N2-02-001G           Gary Kelley         Bell Co. WCID #2           -366.61         -36.00           -389.72         -276.02	N2-02-022G Moffat WSC #1 -329.70 -583 70	N2-02-024G Armstrong WSC # -245.80 -277 10	N2-02-034G N2-03-001G 1 East Bell WSC #1 en. TX Vet. Hospit -217.45 -404.70 -307 54 -429 03	N2-04-010P East Bell WSC #2 -268.00 -378.00	N2-10-001P         N2-13-001P         N2-13-002P           Armstrong WSC #2         Moffat WSC #2         Trinity Oasis LLC (Jack Hilliard Dozer and Materials)           -305.80         -355.00         -173.40           -373.10         -596.70         -203.60	N2-14-004P CTWSC Doc Curb -417.08	N2-14-005P CTWSC System Split Well -179.11 -225.60	N2-15-002P         N2-20-002P         N2-20-003P           City of Troy #2         Hines Texas, LLC #1         Hines Texas, LLC #2         I           -465.29         -348.35         -389.81         -404.01	N2-20-004P         N2-21-004P         N2-21-005P           Hines Texas, LLC #3         Hines Texas, LLC #4         Nathan & Danielle McNeal           -377.12         -398.05         -415.20           -386.44         -398.27         -415.20
Lowest         Soc.45         Soc.45<	SOLUS     STANDA     HSTACL     LTSTAL     HOUST     STSTACL     SHSTACL       Image: Solution of the state	515.05         500.72         504.25	-171.0 -171.0 -171.0 -171.0 -171.3	371.02       07       08       09       36										
8/5/2002 12:00       9/5/2002 12:00         10/5/2002 12:00       11/10/2002 12:00	Image: second se		-1/1.6 -171.7 -172.0 -171.	51 72 04 .8										
12/5/2002 12:00       1/1/2003 0:00         1/1/2003 12:00       1/31/2003 12:00         2/5/2003 12:00       1/31/2003 12:00	Image: second se	-491.05 -321.15	-172.6	.6 72		-332	2.7			Image:				
2/3/2003 12:00     3/5/2003 12:00       4/5/2003 12:00     5/5/2003 12:00	Image: second se		-172.7 -170.9 -171.6 -171.5	58 58						Image: Constraint of the second sec				
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2/27/2004 12:00          3/5/2004 12:00          4/5/2004 12:00          5/5/2004 12:00	Image: second se	-318.88	-172.2 -173.0 -174.4	25 07 43										
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1/11/2008 12:00       2/5/2006 12:00       3/5/2006 12:00       4/5/2006 12:00       5/5/2006 12:00	Image: second se		-175.6 -175. -174.8 -176.5	61 .6 87 55						Image: Constraint of the second sec				
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7/1/2007 0:00       7/5/2007 12:00         8/5/2007 12:00       9/5/2007 12:00	Image: second se	Image:	-170.5 -170.2 -169.2	57 25		-37	79							
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1/1/2008 0:00       1/5/2008 12:00         1/31/2008 12:00       2/5/2008 12:00	Image: second se	-325.19	-168.7 ) -167.8	72 81		-329	).7			Image:				
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5/5/2008 12:00         6/5/2008 12:00         7/1/2008 0:00         7/5/2008 12:00         8/5/2008 12:00	Image: Second		-173.6 -173.6 -170.8 -170.2	53 53 39 23		-355	5.9							
9/5/2008 12:00     10/5/2008 12:00       11/5/2008 12:00     11/5/2008 12:00	Image: second se		-169.0 -169.1 -168.9	04 15 97										
12/5/2008 12:00     1/1/2009 0:00       1/5/2009 12:00     1/5/2009 12:00	Image: second se	Image: Constraint of the second sec	-169.6 -168.8 -169.3	35 38 35		-434	l.4							
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7/1/2009 0:00       7/1/2009 12:00         7/5/2009 12:00       8/5/2009 12:00         9/5/2009 12:00       9/5/2009 12:00	Image: second		-167.2 -167.1 -166.6	21 12 58		-355	.9							
10/5/2009 12:00         12/15/2009 12:00         1/1/2010 0:00         1/1/2010 13:00	-291.16         Image: Constraint of the second		-167.2 -165.9	23 98		-397	/.4							
1/5/2010 12:00       1/5/2010 12:00         3/5/2010 12:00       1/5/2010 12:00	Image: state of the state o		-166.3 -170.0 -167.5 -165.5	38 02 51 51										
5/5/2010 12:00       6/5/2010 12:00         7/1/2010 0:00       7/1/2010 12:00	Image: Second		-164.5 -164.	.4		-406	5.7							
7/5/2010 12:00         8/5/2010 12:00         9/5/2010 12:00         10/5/2010 12:00	Image: Constraint of the second se		-164.3 -164.9 -163.6 -164.5	38 98 52 54										
12/5/2010 12:00       1/1/2011 0:00         1/1/2011 12:00       1/5/2011 12:00	-290.13         Image: Marcine State         Image: Marcine State </td <td></td> <td>-175.</td> <td>.8</td> <td></td> <td>-360</td> <td>0.5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		-175.	.8		-360	0.5							
2/5/2011 12:00	Image: Section of the section of th	-329.85	-172.1 -171.1 -171.4	18 15 46										
6/5/2011 12:00     6/5/2011 12:00       7/1/2011 0:00     7/1/2011 12:00       7/5/2011 12:00     6/5/2011 12:00	-290.25         Image: Constraint of the sector of the		-169.4 -168.3	11		-346	5.5 		-26					
8/5/2011 12:00       9/1/2011 0:00       9/1/2011 14:00	-291.93         Image: Constraint of the second of the		-167.4 -168.5	54		-457	/.1							
9/5/2011 12:00	Image: Constraint of the second sec		-176. -173.7	.8		-454	1.8							
11/5/2011 12:00       12/5/2011 12:00       1/1/2012 0:00	-293.85     -293.85     -293.85     -293.85     -293.85     -293.85		-193.5 -192.9	58		-453	3.2		-37					
1/5/2012 12:00       1/5/2012 13:00         2/5/2012 12:00       10/2012 12:00	Mathematical         Mathematical<		-193.8 -193.5 -193.1	56 16										
4/5/2012 12:00	-293.47 <b>Contract of the second secon</b>		-190.9	91		-456	5.5		-27	8				

e were taken by the Clearwater staff.	The Texas Water Development Board	provides information through	publication of continuous moni	toring data on
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State #	the measurements of the measurements, shown in red. The measurements in blue were taken by the measurements of the measurements, shown in red. The measurements in blue were taken by the measurements of the TxDOT wells and an additional well in Salado, shown in red. 58-03-410 58-03-411 40-57-602 40-62-501 40-54-701 40-61-509 40-53-405 F-20-120P F-22-006P F-22-007P M-09-002P M-13-005G M-13-006G M-13-007G M-13-039G 4-17-CTGCD Car	40-35-404 58-02-303 58-10-303	58-17-902 58-29-603 M-5817902 M-5829603	58-03-40 N1-18-004	04 58-02-505 58-06-102 40-53-406 4P N1-19-003P N2-02-001G N2-02-022G	58-05-202 40-63-501 40-62-401 58-06-30 N2-02-024G N2-02-034G N2-03-001G N2-04-010	. 58-05-502 P N2-10-001P	40-53-507 58-06-201 N2-13-001P N2-13-002P	58-04-203 N2-14-004P	58-06-202 40-54-201 58-03-406 58-03-407 N2-14-005P N2-15-002P N2-20-002P N2-20-003P	58-03-408 58-03-409 N2-20-004P N2-21-004P	58-02-601 N2-21-005P
Well Name Highest Lowest	Let for the second of the se	Interference         Interference           RRR Hosston         City of Florence           -477.64         -293.99         -289.96           -543.86         -315.89         -588.72	Westwood Boys Ranch         City of Taylor #3           -220.40         -37.90           -384.20         -211.57	Justin Sco -353.59 -371.82	Ott         Gary Kelley         Bell Co. WCID #2         Moffat WSC #1           -366.61         -36.00         -329.70           -389.72         -276.02         -583.70	Armstrong WSC #1         East Bell WSC #1         en. TX Vet. Hospit         East Bell WSC           -245.80         -217.45         -404.70         -268.00           -277.10         -307.54         -429.03         -378.00	C #2 Armstrong WSC # -305.80 -373.10	Moffat WSC #2Trinity Oasis LLC (Jack Hilliard Dozer and Materials)-355.00-173.40-596.70-203.60	CTWSC Doc Curl -417.08 -485.03	b         CTWSC System Split Well         City of Troy #2         Hines Texas, LLC #1         Hines Texas, LLC #           -179.11         -465.29         -348.35         -389.81           -225.60         -466.15         -373.58         -404.01	Hines Texas, LLC #3         Hines Texas, LLC #4           -377.12         -398.05           -386.44         -398.27	4 Nathan & Danielle McNea -415.20 -415.20
5/1/2012 12:00 5/5/2012 12:00 6/5/2012 12:00	Image: Second se	-494.64	-189.7 -187.4 187.2	.71 .41								
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1/1/2013 0:00 1/1/2013 12:00 1/5/2013 12:00	And the sector of the sector	-504.42 -504.42	-192.0	.09	-468.8	.8	-280					
2/5/2013 12:00 3/5/2013 12:00 4/5/2013 12:00 5/1/2013 0:00	Image: select		-191.9 -191.3 -193.8	.95 .36 .83	-466.3	.3	-285					
5/1/2013 12:00 5/5/2013 12:00 6/5/2013 12:00	Image: Second se	-504.54	-193.4 -191. 105.1	.42								
8/1/2013 12:00 8/1/2013 0:00 8/1/2013 12:00 8/5/2013 12:00	Image: series of the series	-507.21 -507.21	-195.1	.14	-473.1 473.1		-282 -329.	3 3				
9/5/2013 12:00 10/5/2013 12:00 10/25/2013 0:00 11/1/2013 0:00	Image: Second		-195.7 -195.5	.75 .53	-466.6	.6	-3	3 -173	.4			
11/1/2013 12:00 11/5/2013 12:00 12/5/2013 0:00	Image: Constraint of the second se	-504.65	-195.7	.75				-177	.7			
12/5/2013 12:00 12/11/2013 12:00 1/5/2014 12:00 2/1/2014 0:00	Image: series of the series		-195.6 -348.58 -195.2	.26	-466.2	.2 -230	-290	-475.7				
2/1/2014 12:00 2/5/2014 12:00 3/5/2014 12:00	Image: series of the series	-500.52 -500.50 -500.52 -500.500.50 -500.500.500000000000000000	-195.2 -194.7 -194.7	.27 .73	Image: Constraint of the second sec	Image: Constraint of the second sec						
5/1/2014 12:00 5/1/2014 12:00 5/5/2014 12:00	Image: Constraint of the system of the sy	-505.63	-193.7	.76	-469.5	.5 -230 -230	-285	-479.1 -1	74			
6/5/2014 12:00 7/5/2014 12:00 8/1/2014 0:00 8/1/2014 12:00	Image: Constraint of the system         Image: Consthe system         Image: Constraintooft of	-501.99	-193.3 -193.3	.36 .35	-471.7	.7 -230	-285	-481.1 -1	76			
8/5/2014 12:00 9/5/2014 12:00 9/23/2014 0:00	Image: Sector of the sector		-195.0 -192.7	.05 .79								
10/5/2014 0:00 11/1/2014 0:00 11/1/2014 12:00	Image: state of the state of		-192.6	.65	-470.4	.4 -235235	-290	-476.9 -177	.8			
11/5/2014 12:00 11/17/2014 0:00 12/5/2014 12:00 12/16/2014 0:00	Image: Second se		-193.0 -193.0	.05		-247.9 -246.3	-329	5 7 7				
1/1/2015 0:00 1/1/2015 12:00 1/5/2015 12:00	Image: Sector state	-504.68	-193.1	.14		-235	-290	-175	.1			
1/6/2015 0:00 1/9/2015 0:00 2/1/2015 0:00 2/5/2015 12:00	Image: series of the series		-193.1	.15	-467.79	-246.4	-327	-477.3 7		Image: state         Image: state<		
2/11/2015 0:00 3/5/2015 0:00 3/5/2015 12:00 3/11/2015 0:00	Image: selection of the		-193.2	.23	-468.79	-246.7 79 -247	-327	7 -478.4				
3/26/2015 0:00 4/5/2015 12:00 4/9/2015 0:00	Image: Constraint of the second sec		-192.3	.35	-468.7	.7 -247.9	-329	2 -478				
5/1/2015 0:00 5/5/2015 12:00 5/12/2015 0:00 5/20/2015 0:00	Image: selection of the		-193.2	.21	-469	-245.8	-330	-478.6	-45	54 Sector		
6/1/2015 0:00 6/1/2015 12:00 6/4/2015 0:00 6/5/2015 0:00	Image: Problem 1       Problem 2       Problem	-500.88			-467.8	.8 -230 -230 -248.5 -24	-290 -3	-477.4 -175	.1			
6/5/2015 12:00 7/1/2015 0:00 7/5/2015 12:00	Image: series of the series		-191.3 -190.0	.36	-468.5	.5 -230	-290	-478				
8/3/2015 0:00 8/5/2015 0:00 8/5/2015 12:00 9/2/2015 0:00	Image: series of the series		-188.9	.94	-485.2 -485.2	-248.7 .2 -265 .1 .1	-330	-484.7 -485.9		Image: state         Image: state<		
9/5/2015 0:00 9/5/2015 12:00 9/7/2015 0:00 9/14/2015 0:00	Image: Sector		-191.8	.85		-275 -247.3	-290	5 -180	.8			
9/14/2015 12:00 10/1/2015 0:00 10/5/2015 12:00	Image: Second se Image: Expect second sec	-515.00	-190.4	.42	-477.7	.7 .7		-485.9				
10/28/2015 12:20 11/2/2015 0:00 11/5/2015 0:00 11/5/2015 12:00	Image: selection of the		-337.26	.04	-478	78     -248.8     -270	-290 -330	-483.9 3				
11/30/2015 0:00 11/30/2015 12:00 12/2/2015 0:00 12/5/2015 12:00	Image: Problem 1       Problem 2       Problem	-509.45 -509.45	-189.4	.45	-471.7	.7		-177 -481.3	.7			
1/1/2016 12:00 1/5/2016 0:00 1/5/2016 12:00	Image: Marking Series (1)       Image:	-507.80 -507.8	-190.6	.62	-470.8	.8 -249 -260	-295 -331	1 -480.9 -175	.9			
2/5/2016 12:00 3/1/2016 0:00 3/5/2016 16:00 4/4/2016 0:00	Image: selection of the		-190.2	.56	-470.9 -472.2	.9		-481.1 -482.4				
4/5/2016 0:00         4/5/2016 18:00         4/9/2016 0:00         4/19/2016 0:00	Image: Sector of the sector		-188.7	.77		-250.3 -260	-295 -332		5			
4/19/2016 0:00 5/2/2016 0:00 5/5/2016 18:00		-507.52	-188.3	.38	-472.4	.4		-484.5				
5/11/2016 0:00 6/1/2016 12:00 6/5/2016 19:00 7/1/2016 0:00	Image: Sector state       Image: Sector state<	-505.35	-188.1	.15		.5		-486.4				
7/5/2016 19:00 8/1/2016 0:00 8/2/2016 0:00	Image: state of the state of		-187.1	.14	-484	84 -272 -272	-290	-490.2				
8/30/2016 20:00 8/30/2016 0:00 8/30/2016 12:00 8/31/2016 0:00	Image: Constraint of the system         Image: Constra	-515.93	-186.7		-476.8	.8 -252.8 -265	-292 -334	1 -488.5 -176	.7			
9/5/2016 12:00 9/13/2016 0:00 9/30/2016 0:00 10/3/2016 0:00	Image: Marking State       Image: Marking State <th< td=""><td></td><td>-198.1</td><td>.14</td><td>-485.1</td><td>.1 -268</td><td>-290</td><td>-489.4</td><td></td><td></td><td></td><td></td></th<>		-198.1	.14	-485.1	.1 -268	-290	-489.4				
10/5/2016 0:00 10/5/2016 18:00 10/6/2016 0:00	Image: Marking Series (1)       Image:		-195.7	.79		-251.7 	-334	5				
10/6/2016 12:00 10/13/2016 10:00 10/13/2016 12:00 10/17/2016 0:00	Image: selection of the	-515.12 -523.9 -523.9	-341.85									
10/19/2016 0:00 11/1/2016 0:00 11/1/2016 12:00 11/2/2016 0:00	-297.65       -353.20       Image: Constraint of the second secon	-515.11			-477.3	-254.1	-270	-489.2				
11/5/2016 0:00 11/21/2016 0:00 12/1/2016 0:00	Image: state     I		-194.0	.06	-476.3	.3 -252.9 -268	-335	3 -488.4				
12/1/2016 12:00 12/5/2016 14:00 12/6/2016 0:00 1/3/2017 0:00	Image: Marking Sector (Marking Sector (Marking)	-514.00	-193.9	.97		.6 -262	-290	-486.5				
1/5/2017 0:00 1/5/2017 6:00 1/5/2017 12:00	Image: Constraint of the system of the sy	-513.32	-194.4	.44		-254.6	-356	3				
1/6/2017 0:00 2/1/2017 0:00					-476.3	.3 -254.6 -262	-290 -336	-183	.8			

e were taken by the Clearwater staff.	The Texas Water Development Board provides information through publication of continuous monitoring data on
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Staff measures wel	s quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility. The Texas Water Dev	velopment Board conduct the measu	cted some of the meas arements of the TxDOT	surements, shown T wells and an addi	i in red. The measurements in blue were taken by th litional well in Salado, shown in red.	e Clearwater staff. The Texas Water Development Bo	pard provides information through publication of continuous monitoring data on							
State # CUWCD #	58-03-410         58-03-411         40-57-602           E-20-120P         E-22-006P         E-22-007P         M-09-002P	40-62-501 M-13-005G	40-54-70 M-13-006	01 40-61 96G M-13-	51-509 40-53-405 8-007G M-13-039G Л-17-СТGCD_Carli	40-35-404 58-02-303 M-18-TWDB-Gatesville M-19-001P	58-10-303 58-17-902 M-5810303 M-5817902	58-29-603 58-03-404 M-5829603 N1-18-004P	58-02-505 N1-19-003P	58-06-102         40-53-406         58-05-202         40-63-501         40-62-401           N2-02-001G         N2-02-022G         N2-02-024G         N2-02-034G         N2-03-001G	58-06-301         58-05-502         40-53-507         58-06-201         58-04-203           N2-04-010P         N2-10-001P         N2-13-001P         N2-13-002P         N2-14-004P	58-06-202 40-54-201 N2-14-005P N2-15-002P	58-03-406         58-03-407         58-03-408           N2-20-002P         N2-20-003P         N2-20-004P	58-03-409 58-02-601 N2-21-004P N2-21-005P
Well Name Highest	Ilman Valley Ranchettes Welltillman Valley Ranchettes Well # Copperas Cove - Low         -580.40       -368.41       -373.16       -290.13         580.40       275.28       274.48       202.65	ver Acres-City of Tem -136.13	ople #1 rley-City of T -259.00	Templ∉ Ridge-City 0 -31	y of Templ€-Tanglewood Moni Carlile 1.00 -268.60 -370.70	RRR Hosston -477.64 -293.99 542.96 245.80	City of FlorenceWestwood Boys Ranch-289.96-220.40509.72284.20	City of Taylor #3         Justin Scott           -37.90         -353.59           211 57         271 82	Gary Kelley -366.61	Bell Co. WCID #2         Moffat WSC #1         Armstrong WSC #1         East Bell WSC #1         en. TX Vet. Hospit           -36.00         -329.70         -245.80         -217.45         -404.70           277.02         592.70         277.10         207.54         420.02	East Bell WSC #2       Armstrong WSC #2       Moffat WSC #2       Trinity Oasis LLC (Jack Hilliard Dozer and Materials)       CTWSC Doc Curl         -268.00       -305.80       -355.00       -173.40       -417.08         278.00       278.00       506.70       203.60       485.02	CTWSC System Split Well         City of Troy #2           -179.11         -465.29           225.60         466.15	Hines Texas, LLC #1         Hines Texas, LLC #2         Hines Texas, LLC #3           -348.35         -389.81         -377.12           272.59         404.01         286.44	Hines Texas, LLC #4     Nathan & Danielle McNea       -398.05     -415.20       208.27     415.20
2/2/2017 0:00	-580.40 -375.38 -374.18 -302.65	-377.94	-497.02	2 -275	9.81 -488.37 -375.60	-543.86 -315.89	-588.72 -384.20	-211.57 -371.82	-389.72	-276.02 -583.70 -277.10 -307.54 -429.03 -225.5	-378.00 -373.10 -596.70 -203.60 -485.03	-225.60 -466.15	-373.58 -404.01 -386.44	-398.27 -415.20
2/6/2017 0:00 2/6/2017 12:00	-297.72	-353.35	-472.18	8 -249	-371.03	-512.78		-194.45			Image: Constraint of the second sec			
3/1/2017 0:00 3/5/2017 0:00		-353.20			-371.13					-251 -251	-292 -292			
3/5/2017 12:00 3/5/2017 15:00						-512.95		-194.21						
3/6/2017 0:00 3/7/2017 0:00		252.20	-471.30	0 -249	9.90					-254	-336.5			
3/31/2017 0:00		-555.20	-472.20	-243	-370.70	-512.64								
4/3/2017 0:00 4/4/2017 0:00					-453.90					-476.8 -253 -253.7	-294 -487.1 -335			
4/5/2017 0:00 4/24/2017 0:00		-353.31						-194.43			-184.2 -184.2			
5/1/2017 0:00 5/4/2017 0:00								104.2		-477.3     -267       -252.4     -252.4	-294 -487.8 -335			
5/8/2017 17:00 5/8/2017 0:00 5/8/2017 12:00			-471.93	3 -249	.9.84 -371.04	-514.67		-194.5						
6/1/2017 0:00 6/2/2017 0:00										-269 -254	-295 -335.7			
6/4/2017 0:00 6/4/2017 12:00	-297.28	-353.90			-371.41	-515.82								
6/5/2017 0:00 6/5/2017 16:00			-473.45	5 -250	60.00			-193.56		-480.7				
7/5/2017 0:00 7/5/2017 0:00								-193.87		-180.2 -478 -268	-295 -488.3			
7/6/2017 0:00 7/6/2017 12:00		-354.40	-473.83	3 -250	i0.63 -451.20 -371.28	-516.31					-185.1			
7/7/2017 0:00 8/1/2017 0:00	-297.35									-254.7 -478.6 -270	-336 -395 -489.7			
8/3/2017 0:00 8/4/2017 0:00										-255 -255	-335.5	9		
8/5/2017 18:00 8/9/2017 0:00	-297.20	-355.22	-474.52	2 -251	-371.28			-194.04						
8/25/2017 0:00 9/1/2017 0:00										-482.2 -285	-294 -493.6			+
9/4/2017 0:00 9/5/2017 0:00			474.84	4251	j1.74371.50					-253.2 	-336.7			
9/5/2017 12:00 9/5/2017 17:00						-525.80		-194.36						
10/2/2017 0:00 10/2/2017 12:00	-297.80				-371.30	-526.60					-295 -487.9			
10/3/2017 0:00 10/4/2017 0:00 10/5/2017 18:00					-451.60			104.79		-193.17 -256.6 -405.3	-337.3 -183.6			
10/19/2017 13:50 11/1/2017 0:00							-35	2		-477.9	-488.4			
11/2/2017 0:00 11/3/2017 0:00										-257.2 -283	-337.9 -45 -297	5 -183.4		
11/5/2017 19:00 11/6/2017 0:00		-356.97	-475.80	0				-196.34		Image: Constraint of the second sec	-185.3			
11/6/2017 12:00 11/6/2017 14:19					-371.40	-524.16								
12/4/2017 0:00 12/4/2017 14:16		-357.15	-476.26	6	-371.20						-257 -307 -186.3 -455	4 -183.3		
12/5/2017 0:00 12/27/2017 0:00	-297.80							-196.45		-256.77	-338.3 -186.95			
12/27/2017 12:00 12/27/2017 14:16					-371.30	-522.91								
12/29/2017 0:00 1/2/2018 0:00		-357.33	-476.82	2 -253	3.86 -456.20					-483.9 -220	-297 -297 -492 -455.8	5 -183.75		
1/4/2018 0:00 1/5/2018 19:00								-196.97		-257.8	-357.7357.7			
1/31/2018 12:00 2/1/2018 13:50										-400.7 -217.45	-294.41 -338.4			
2/4/2018 12:00 2/5/2018 0:00					-371.40 -371.30						-481.1			
2/5/2018 9:57 2/5/2018 10:00										Image: Constraint of the second sec	Image: Constraint of the second sec			
2/5/2018 10:02 2/5/2018 10:12											Image: Constraint of the second sec			
2/5/2018 12:00 2/5/2018 19:00 2/28/2018 12:00						-522.72		-196.86		-217.45	-296.72			
3/1/2018 0:00 3/1/2018 14:00										-484.5	-495.09			
3/2/2018 12:20 3/2/2018 12:30										-257.6	-338.2 -338.2			
3/4/2018 12:00 3/5/2018 0:00					-371.70 -371.00			100.52						
3/5/2018 12:00 3/6/2018 15:48		-357.77	-477.14	4 -253	3.65			-190.52						
3/19/2018 9:45 3/29/2018 12:00	-297.72									-183.62				
3/30/2018 12:00 3/30/2018 14:00		-357.98	-477.16	6 -254	4.39					Image: Constraint of the second sec	-187.3			
3/30/2018 15:40 4/3/2018 0:00					-468.50						-513.5			
4/3/2018 8:00 4/4/2018 8:58 4/4/2018 13:22	Image: second s									-494.8 -256.6	Image: Constraint of the second sec			
4/4/2018 13:55 4/4/2018 14:40											-456.7	-180.05		
4/5/2018 21:00 4/24/2018 8:17								-197.57			-334.8			
4/24/2018 9:05 4/24/2018 11:01										-254.8 -219.76				
4/24/2018 11:41 4/24/2018 13:25 4/24/2018 12:52										-276.02 -276.02 -408.8	-233.33     -233.33       Image: Constraint of the second s			+
4/26/2018 10:05 4/27/2018 8:57											-456.4	5		
4/30/2018 12:00 5/1/2018 0:00										-219.76	-299.03 -505.09			
5/1/2018 12:40 5/5/2018 21:00								-204.21		-487.3				
5/7/2018 0:00 5/7/2018 12:00	-297.43	-359.03	-477.82	2 -254	-371.90									
5/31/2018 9:03 5/31/2018 12:00 6/1/2018 9:50										-217.45 -219.76	-303.65	1		+
6/1/2018 9:55 6/1/2018 10:05										-261.6				
6/1/2018 11:20 6/1/2018 11:44										-410.6	-302.88			
6/3/2018 19:00 6/3/2018 20:00	-297.57	-360.85												
0/4/2018 0:00 6/4/2018 1:00 6/4/2018 2:00			470.42	-254	-372.20						-5U3./			+
6/4/2018 8:10 6/4/2018 8:50			-4/9.43	, 						-495.5		-184.84		+
6/5/2018 12:00 6/21/2018 12:00						-528.55		-204.01						
6/29/2018 12:00 7/1/2018 0:00										-245.17	-296.72 -508.4			
7/3/2018 9:17 7/3/2018 9:18										-261.3	-342.2			
7/5/2018 0:00 7/5/2018 11:04 7/5/2018 12:02		261.65		-255	-371.80			_204_41			-458.9	1		+
7/5/2018 13:05 7/5/2018 13:30	-297.28	-301.05						-204.41			-187.89			+
7/5/2018 14:00 7/31/2018 12:00					-468.61						-296.72			
8/1/2018 0:00 8/5/2018 12:00								-204.77			-515.4			
8/6/2018 0:00 8/6/2018 12:00	-297.43				-371.90									+
8/6/2018 14:52 8/6/2018 18:00 8/7/2018 0.15						-543.86				-262.6		-1/9.11		+
8/7/2018 9:16 8/13/2018 12:00		-363.13	-481 89	9 -257	7.19						-343			+ +
8/31/2018 12:00		505.15	-01.05	2.57		1			1	-286.75	-299.03	1		1 1

e were taken by the Clearwater staff.	The Texas Water Development Board provides information through publication of continuous monitoring data on
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Staff measures wells quarterly in order to closely monitor the aquifer levels as part of our statuatory responsibility.State #58-03-410State #58-03-410CUWCD #E-20-120PE-22-006PE-22-007P	<ul> <li>The Texas Water Deve</li> <li>40-57-602</li> <li>M-09-002P</li> </ul>	elopment Board conducted some of the measurement the measurements of the TxDOT wells 40-62-501 40-54-701 M-13-005G M-13-006G	ents, shown in red. The measurements in blue were taken by the Clearwater staff. The Texa and an additional well in Salado, shown in red. 40-61-509 40-53-405 40-35-404 M-13-007G M-13-039G /-17-CTGCD Carlil M-18-TWDB-Gatesville	s Water Development Board provides information through publica 58-02-303 58-10-303 M-19-001P M-5810303	ation of continuous monitoring data on 58-17-902 58-29-603 M-5817902 M-5829603	58-03-404 58-02-505 58-06-102 40-53-406 N1-18-004P N1-19-003P N2-02-001G N2-02-022	58-05-202 G N2-02-024G	40-63-501 40-62-401 N2-02-034G N2-03-001G	58-06-301 58-05-502 40-53-507 N2-04-010P N2-10-001P N2-13-001P	58-06-201 N2-13-002P	58-04-203 58-06-202 40-54-201 N2-14-004P N2-14-005P N2-15-002P	58-03-406 58-03-407 58-03-408 N2-20-002P N2-20-003P N2-20-004P	58-03-409 58-02-601 N2-21-004P N2-21-005P
Well NameIlman Valley Ranchettes Well Illman Valley Ranchettes Well # CHighest-580.40-580.40-375.38-374.18	Copperas Cove - Lowe -290.13 -302.65	In 13-0003         In 13-0003           r         Acres-City of Temple #1 rley-City of Temple           -136.13         -259.00           -377.94         -497.02		RRR Hosston         City of Florence           -293.99         -289.96           -315.89         -588.72	Westwood Boys Ranch         City of Taylor #3           -220.40         -37.90           -384.20         -211.57	Justin Scott         Gary Kelley         Bell Co. WCID #2         Moffat WSC           -353.59         -366.61         -36.00         -329.70           -371.82         -389.72         -276.02         -583.70	#1 Armstrong WSC = -245.80 -277.10	#1         East Bell WSC #1         en. TX Vet. Hospi           -217.45         -404.70           -307.54         -429.03	Itz         East Bell WSC #2         Armstrong WSC #2         Moffat WSC #2           -268.00         -305.80         -355.00           -378.00         -373.10         -596.70	Trinity Oasis LLC (Jack Hilliard Dozer and Materials) -173.40 -203.60	CTWSC Doc Curb         CTWSC System Split Well         City of Troy #2           -417.08         -179.11         -465.29           -485.03         -225.60         -466.15	R2-20-0021         R2-20-0031         R2-20-0041           Hines Texas, LLC #1         Hines Texas, LLC #2         Hines Texas, LLC #3           -348.35         -389.81         -377.12           -373.58         -404.01         -386.44	Hines Texas, LLC #4         Nathan & Danielle McNeal           -398.05         -415.20           -398.27         -415.20
9/3/2018 12:00       9/3/2018 14:52         9/4/2018 12:00       9/4/2018 12:08	-297.72	-363.60 -483.00	-257.91 -539.51 -375.60			Image: second	-493.5				-185.51		
9/5/2018 12:00       9/10/2018 14:00         9/11/2018 9:11       9/11/2018 0:14					-205	5.05	-257	.5	252.2		-185.45		
9/27/2018 9:42     9/27/2018 12:00       9/27/2018 13:55     9/27/2018 13:55		-482.72	-258.25			Image: Constraint of the second sec				-191.07	-461.46		
9/27/2018 14:25         9/27/2018 15:21         9/28/2018 12:00         10/2/2018 10:18	-297.72		-469.29 -371.60 -531.08			Image: Constraint of the second sec		-414.3	3		-185.51		
10/4/2018 9:08         10/4/2018 9:09         10/5/2018 12:00					-205	5.31 5.31	-259	.4	-343.3				
10/29/2018 11:23         10/29/2018 11:40         10/29/2018 12:45         10/29/2018 13:41			Image: Constraint of the second sec		-338.4	Image: Constraint of the second sec				-191.41	-184.59 		
10/31/2018 12:00       11/2/2018 15:55         11/5/2018 12:00       11/5/2018 15:00	-298.09	-482.26	-258.82 -371.40 -527.84				-252	-286.75 .2	-299.03 -343.3				
12/3/2018 12:00       12/3/2018 15:00       12/4/2018 12:00	-297.94	-362.84 -482.10	-259.20 -371.90 -527.17				262	-284.44	-296.72				
12/5/2018 15:10       12/26/2018 12:00         12/27/2018 12:00       12/27/2018 13:15	-298.46		-258.79 -258.79			Image: Constraint of the second sec	-263		-349.5	-191.19			
12/27/2018 15:00       12/31/2018 12:00         12/31/2018 21:29       1/2/2019 0:00		-482.08	-467.63 -371.20					-289.06	-292.1	5	-180.47		
1/2/2019 0:00     1/2/2019 8:00       1/7/2019 15:53     1/8/2019 14:05       2/1/2019 0:00     1/2/2019 0:00						Image: state         Image: state<	-488.3 -261	.1	-343	7	-461.23		
2/1/2019 12:26	-298.31	-363.52	-258.76 -371.40 -525.85			Image: state					-463.23 -187.31		
2/4/2019 14:30       2/10/2019 12:00         2/28/2019 0:00       3/1/2019 12:00					-211	I.57         Image: Constraint of the second se	-26	-284.44	-347 -488. -296.72	4			
3/1/2019 12:29       3/4/2019 12:00       3/4/2019 13:26	-298.46	-363.29 -481.37	-259.21 -371.70 -524.53		211					-191.7	-189.27		
3/5/2019 12:00       3/6/2019 12:00         3/26/2019 12:00       3/27/2019 2:00	-298.09	-481.48	-529.59	-293.99	-211	I.22     Image: Second se	-26	52	-344.2				
3/28/2019 11:38		-363.47	-259.02 -467.01							-191.97	-463.4 -188.97		
4/1/2019 12:00       4/2/2019 0:00       4/2/2019 10:58			-371.40				-488.3	-289.06	-292.1 -497.	3			
4/4/2019 12:49       4/4/2019 16:11         4/5/2019 12:00       5/1/2019 10:39					-210	0.24				-191.89	-463.54 -186.46		
5/1/2019 11:49								-284.44	-296.72		-463.55 -187.87		
5/2/2019 0:00       5/2/2019 0:00         5/2/2019 10:23       5/2/2019 10:24         5/2/2019 10:57       5/2/2019 10:57			Image: Constraint of the second sec			Image: state	-262	.9	-343				
5/5/2019 12:00       5/6/2019 4:00         5/6/2019 7:00       5/6/2019 8:00	-298.90	-362.76	-523.79		-210	0.35							
5/6/2019 12:00       6/1/2019 11:55         6/1/2019 12:24       6/3/2019 0:00		-480.89	-258.81 -370.70						-50	1	-471.05 -190.48		
6/3/2019 10:56       6/3/2019 12:00       6/5/2019 11:15	-298.24	-363.09 -481.25	-258.99 -370.90 -524.25				-489.3			-192.32			
6/5/2019 12:00       6/7/2019 12:14         6/7/2019 12:15       6/26/2019 12:00	-298.31		-524.88		-210		-262	.6	-373.1				
6/27/2019 9:38       6/27/2019 10:28         6/27/2019 12:00       7/1/2019 10:45		-363.04 -481.34	-468.62 -259.46							-192.22	464.25		
7/1/2019 12:00			-371.00			Image: Constraint of the second sec	-492.1				-190.95		
7/1/2019 13:57					-209	9.64	-262	.5	-504. -353	5 			
8/2/2019 9:14       8/2/2019 9:15         8/5/2019 9:30       8/5/2019 9:31							-583.7 -262	.2	-541.	ô			
8/5/2019 12:00       8/26/2019 10:30       9/2/2019 12:00	-298.39	-364.04 -483.12	-260.34 -371.50 -534.19 -371.80	-296.31	-209	9.18 -353.59		-286.75	-299.03				
9/3/2019 10:55       9/3/2019 10:59         9/3/2019 12:00       9/3/2019 13:57	-298.46	-364.84	-260.80 -529.56	-298.72		Image: Constraint of the second sec	-501.5		-534.	2	-201.77		
9/3/2019 14:10		-484.88			-209	9.04		4			-465.8		
9/6/2019 10:47       9/26/2019 9:40       9/26/2019 10:14			-478.91				-204	-411.5	-357.1 5				
9/26/2019 12:00       9/26/2019 13:35         9/27/2019 12:00       9/27/2019 13:47	-298.83	-364.66	-261.82 -261.82 -533.14	-300.66		-354.18				-193.89			
10/1/2019 10:54							-502.3	-284.44	-530.	3	-212.42		
10/3/2019 18:10       10/5/2019 12:00         10/7/2019 10:44       10/7/2019 10:47					-207	7.94 7.94 7.94 7.94 7.94 7.94 7.94 7.94	-264	.9			-485.03		
10/7/2019 12:00     10/9/2019 10:50       11/1/2019 12:00     11/1/2019 12:00			-372.10		-384.2			-286.75	-350.2				
11/4/2019 10:44							-265	.5	-351.9	3			
11/4/2019 12:00     11/4/2019 14:05       11/4/2019 14:25     11/5/2010 12:00	-299.27	-365.88	-262.89 -372.00 -531.84	-301.88						-193.86	-190.85		
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e were taken by the Clearwater staff.	The Texas Water Development Board provides information through publication of continuous monitoring data on
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State # CUWCD #	58-03-410       58-03-411       4         E-20-120P       E-22-006P       E-22-007P       N	the measurements of the measurements, shown in red.40-57-60240-62-50140-54-70140-61-50940-53-405M-09-002PM-13-005GM-13-006GM-13-007GM-13-039GA-17-CTGCD_Carlil	40-35-404 58-02-303 58-10-303 M-18-TWDB-Gatesville M-19-001P M-5810303	58-17-902 58-29-603 M-5817902 M-5829603	58-03-404 N1-18-004P	58-02-505       58-06-102       40-53-406         N1-19-003P       N2-02-001G       N2-02-022G	58-05-202 40-63-501 N2-02-024G N2-02-034G	40-62-401 58-06-301 N2-03-001G N2-04-010P	58-05-502 N2-10-001P	40-53-507 58-06-201 N2-13-001P N2-13-002P	58-04-203 N2-14-004P	58-06-202 40-54-201 58-03-406 58-03-407 N2-14-005P N2-15-002P N2-20-002P N2-20-003P	58-03-408 58-03-409 N2-20-004P N2-21-004P	58-02-601 N2-21-005P
Well Name Highest Lowest 12/30/2019 12:02	-580.40         -368.41         -373.16           -580.40         -375.38         -374.18	Pras Cove - Lower         Acres-City of Temple #1         Trley-City of Temple Ridge-City of Temple Tanglewood Moni         Carlie           -290.13         -136.13         -259.00         -31.00         -268.60         -370.70           -302.65         -377.94         -497.02         -279.81         -488.37         -375.60	RRR Hosston         City of Florence           -477.64         -293.99         -289.96           -543.86         -315.89         -588.72	Westwood Boys Ranch         City of Taylor #3           -220.40         -37.90           -384.20         -211.57	-353.59 -371.82	Gary Kelley         Bell Co. WCID #2         Moffat WSC #1           -366.61         -36.00         -329.70           -389.72         -276.02         -583.70	Armstrong WSC #1         East Bell WSC #1           -245.80         -217.45           -277.10         -307.54	en. 1X Vet. Hospit         East Bell WSC #2           -404.70         -268.00           -429.03         -378.00	Armstrong WSC #2 -305.80 -373.10	Moffat WSC #2         Trinity Oasis LLC (Jack Hilliard Dozer and Materials)           -355.00         -173.40           -596.70         -203.60           -193.8	-417.08 -485.03 5	CTWSC System Split Well       City of Troy #2       Hines Texas, LLC #1       Hines Texas, LLC #2         -179.11       -465.29       -348.35       -389.81         -225.60       -466.15       -373.58       -404.01	Hines Texas, LLC #3         Hines Texas, LLC #4           -377.12         -398.05           -386.44         -398.27	-415.20 -415.20
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e were taken by the Clearwater staff.	The Texas Water Development Board provides information through publication	of continuous monitoring data on
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Staff measures wells quarterly	y in order to closely monitor the aquifer levels	s as part of our statuatory responsib	oility. The Texas Water Dev	velopment Board conducted some of the measu the measurements of the TxDOT v	rements, shown in red wells and an additional	d. The measurements in blue were taken by th al well in Salado, shown in red.	e Clearwater staff. The Texas W	Water Development Board p	provides information through publ	ication of continuous monitoring data	i on															
State # CUWCD # E· Well Name	58-03-410 -20-120P E-22-006P Ilman Valley Ranchettes V	58-03-411 E-22-007P Welltillman Valley Ranchettes We	40-57-602 M-09-002P ell #Copperas Cove - Low	40-62-501 40-54-701 M-13-005G M-13-0060 er Acres-City of Temple #1 Irley-City of Te	L 40-61-509 G M-13-007G empl∈ Ridge-City of Te	9 40-53-405 G M-13-039G Л-17-CTGCD_Carli Гетрlє-Tanglewood Moni Carlile	40-35-404 I⊂ M-18-TWDB-Gatesville	58-02-303 M-19-001P RRR Hosston	58-10-303 M-5810303 City of Florence	58-17-902 M-5817902 Westwood Boys Ranch	58-29-603 M-5829603 City of Taylor #3	58-03-404 N1-18-004P Justin Scott	58-02-505 55 N1-19-003P N2 Gary Kelley Bell (	58-06-102 I2-02-001G Co. WCID #2 N	40-53-406 58-05-202 N2-02-022G N2-02-024G Moffat WSC #1 Armstrong WSC #1	40-63-501 N2-02-034G 1 East Bell WSC #1 ei	40-62-401 58-06-3 N2-03-001G N2-04-0 n. TX Vet. Hospit East Bell V	801 58-05-502 10P N2-10-001P /SC #2 Armstrong WSC #2 N	40-53-507 N2-13-001P Aoffat WSC #2 Trinity Oasis	58-06-201 N2-13-002P LLC (Jack Hilliard Dozer and Mater	58-04-203 N2-14-004P ials) CTWSC Doc Curb CTWSC	58-06-202 N2-14-005P I C System Split Well Ci	40-54-201 58-03-406 N2-15-002P N2-20-002P ity of Troy #2 Hines Texas, LLC	58-03-407 N2-20-003P #1 Hines Texas, LLC #2	58-03-408 58-03-409 58-02-60 N2-20-004P N2-21-004P N2-21-00 Hines Texas, LLC #3 Hines Texas, LLC #4 Nathan & Daniel	01 05P elle McNea
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Historical	0.00 4.36	-0.15	-11.49	-241.03 -237.83	-248.80	-215.15 -1.91	-54.71	-21.90	-230.45	-163.80	-171.25	-18.23	-23.11	-183.18	-176.30 -29.20	-45.20	-23.58 -26.4	1 -27.97	-40.40	-25.43	-23.90	-18.65	0.8625.23	-14.20	-6.44 -0.22 0.00	
E-line M	leasurement	The desired future condition	ns established by Clearwa	ater Underground Water Conservation Distric	ct for the	Lower Trinity is no more the	an 319 feet of drawdown		Minimum Number of Measurements:	3																

Sonic Measurement TWDB Measurement

Air line Measurement No Reading Available

e were taken by the Clearwater staff.	The Texas Water Development Board provides	information through publication of continuous monitoring data on
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Average Drawdown Drawdown of Water Level Increase of Water Level

-4.61 ft/yr



### 20th Annual Bell County Water Symposium "Changes in Texas Mean Changes in Bell County"

November 17, 2021 8:00 A.M. --- 3:30P.M. Bell County Expo Center - Assembly Hall \*\*This event is free but requires RSVP by November 12th\*\*

### **Program at a Glance**

#### 8:00 a.m. - Registration

- 8:30 a.m. Welcome & Introductions
- 8:45 a.m. Status of Water in Texas Mr. Michael Irlbeck, Business Development Director, EPCOR USA Inc.
- 9:15 a.m. Rural Land Trends and Impacts to Groundwater Dr. Roel Lopez, Director, Texas A&M Natural Resource Institute Dr. Robert Mace, Executive Director, Meadows Center for Water & the Environment—Texas State University
- 9:45 a.m. Growth and Development Bell County: It has, It is & It will be Honorable Judge David Blackburn

#### 10:45 a.m. State of Groundwater in Bell County Mr. Leland Gersbach, Board President, Clearwater UWCD Mr. Dirk Aaron, General Manager, Clearwater UWCD

#### 11:30 a.m. Texas Runs on Water Brianna Fuller, Texas Water Foundation

#### 12:00 p.m. - Lunch (Legislator Comments / Awards)

1:15 p.m. BRA Update on Surface Water Resources in Brazos Planning Region G Mr. Brad Brunett, Lower/Central Basin Region Manager, Brazos River Authority

#### 1:45 p.m. New Understanding of the Trinity Aquifer n Bell and Williamson Counties <u>Expert Panel</u> Moderator: Cole Ruiz, Attorney, Lloyd Gosselink Rochelle & Townsend, P.C. Mr. Mike Keester, Professional Geoscientist, LRE Water Dr. Joe Yelderman, Chair of Geosciences, Baylor University, Mr. Vince Clause, Professional Hydrologist, Allan R. Standen LLC,

#### 2:30 p.m. ASR, Is it a Viable Strategy in Bell County Dr. Neil Deeds, Professional Engineer, INTERA Inc. Dr. Steve Young, Professional Engineer/Geoscientist, INTERA Inc.

#### 3:00 p.m. Status Update of the Salado Salamander's Critical Habitat Designation and Species Status Assessment

Mr. Steve Manning, President , Natural Resources Solutions, LC Ms. Madelyn Todd, Project Manager, Natural Resources Solutions, LC



The Clearwater Underground Water Conservation District is Pleased to Announce the 20th Annual

## **Bell County Water Symposium**

"Changes in Texas Mean Changes in Bell County"

November 17, 2021 8:00 a.m. - 3:30 p.m.

**Location** 

# Bell County Expo Center - Assembly Hall

## 301 W Loop 121, Belton, TX

This event is open to the public free of charge

Please RSVP by November 12th

254-933-0120 tsmith@cuwcd.org

Clearwater Underground Water Conservation District would like to extend a special thank you to the sponsors of the 20th Annual Bell County Water Symposium.

