2016 ANNUAL REPORT

Clearwater UWCD

Belton, Texas

www.cuwcd.org

Clearwater
Underground Water Conservation District
Every drop counts!

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 2016

The Annual Report for Fiscal Year 2016 (FY16) is presented to the Directors of the Clearwater Underground Water Conservation District (CUWCD or District) by May of the following Fiscal Year (May 2017). This report summarizes the activities and accomplishments of the District during FY16 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 2016 calendar year.

2015-2016 Board of Directors

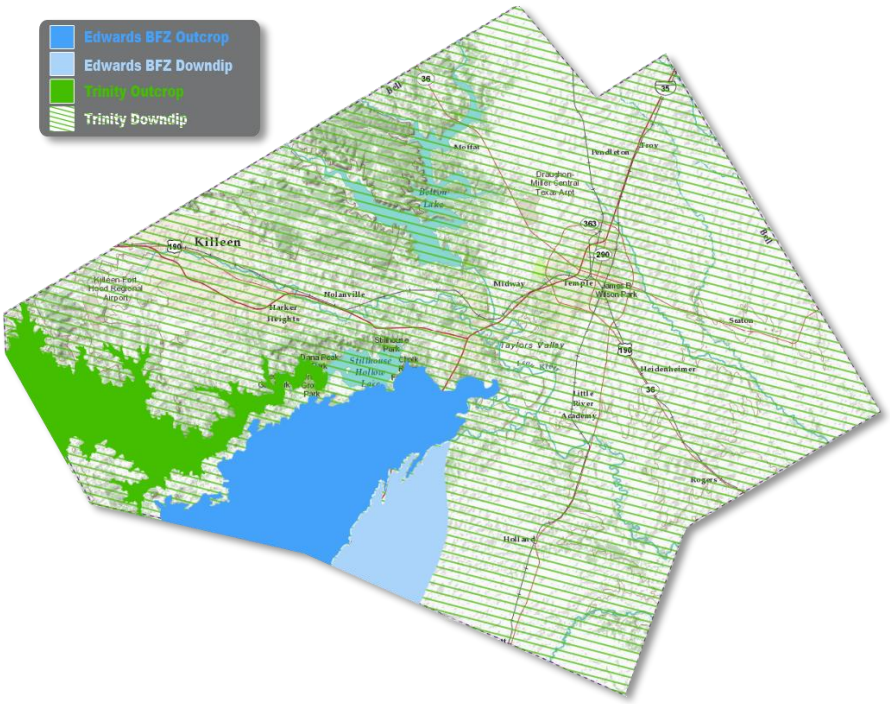
David Cole	Wallace Biskup	Leland Gersbach	Judy Parker	Gary Young
At-Large	Precinct 3	Precinct 1	Precinct 4	Precinct 2

Contents

1. Introduction

The Clearwater Underground Water Conservation District was created by the State legislature in 1989 to manage the groundwater resources of Bell County. The District was approved by the voters of Bell County in August 1999 and opened its doors for business in February 2002. Clearwater's fiscal year runs from October 1st through September 30th. This report summarizes the accomplishments and activities of the District during FY16; but reflects registration, permitting, and production figures for the calendar year 2016.

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



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

2. Administrative Tasks

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

A. Contracts / Agreements

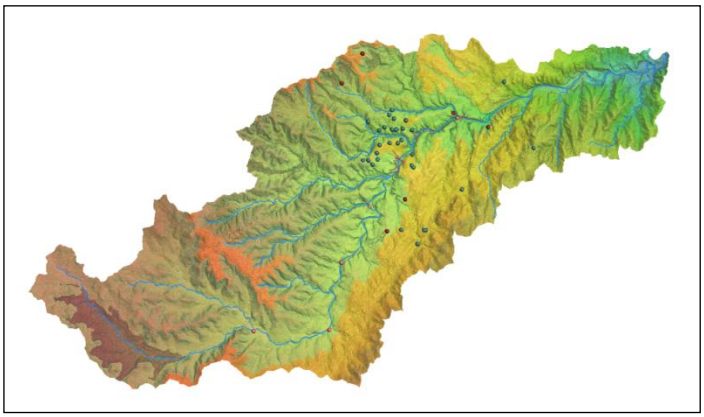
1. Technical Consulting Services

LBG-Guyton Associates

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 and FY16. The firm provides administrative and technical reviews of drilling and operating permits along with investigative analysis of aquifer conditions and well construction complaints. LBG-Guyton Associates also continues to provide technical representation of the district in GMA 8 relating to development of desired future conditions associated with required joint planning.

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 2016 updates included the addition of high resolution aerial imagery, roads, digital elevation and reference latitude and longitude grid system for the 3D model of Bell County. New geophysical and well drilling logs from throughout the county were also added to the 3D model. Updating our model on an annual basis allows for more accurate analysis and use of this tool by district staff, consulting hydrogeologist, and landowners for well development and prognosis of the aquifer depths prior to drilling. The tool also continues to assist the district in source aquifer determination of newly drilled wells.



Salado Creek Watershed from Bell County 3D Groundwater Model

Halff Associates, Inc

Halff Associates, Inc. created and continues to manage the District's online GIS website. This GIS platform allows the District web based access to the entire database of wells that has been compiled through the years. All well information is available online to staff as well as the public. Some of the information available includes well latitude and longitude along with ground level elevation of the well head and total depth of well. In 2016, Halff Associates updated the platform of the GIS website, created aquifer layers based on CUWCD's 3D model, linked the TWDB continuous monitor wells and the USGS surface water gages, incorporated the raster files from CUWCD's 3D

model and created a virtual bore tool, and enhanced the dashboard with the DFC trends and water level data. The image below shows the information provided by the virtual bore tool.

Clearwater UWCD Virtual Bore

Latitude	30.99284
Longitude	-97.60796

Approximate Ground Surface Elevation

872.05, NAVD 88

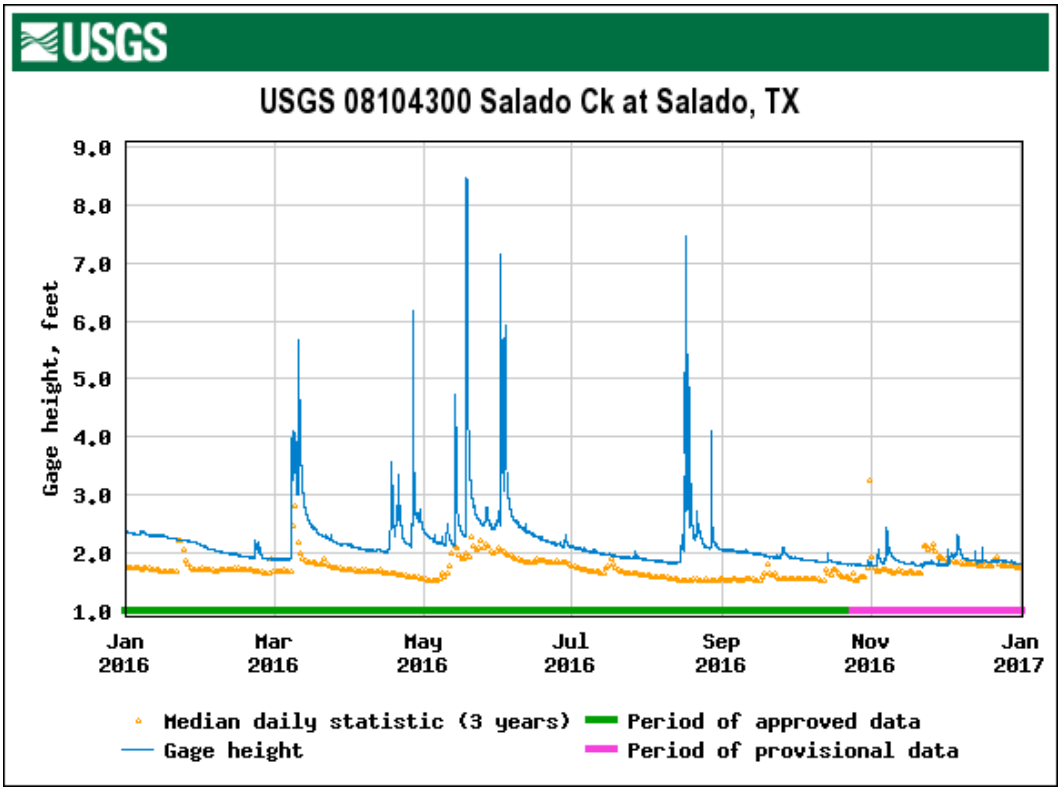
	Top Elev. (ft)	Bottom Elev. (ft)		Depth to Formation (ft)*	Formation Thickness (ft)*	Formation (Geologic Unit)
1	872.05	839.44		0.00	32.61	Taylor Marl and Austin Chalk
2	839.44	837.91		32.61	1.53	Del Rio, Georgetown, Main Street and Paw Paw Limestone
3	837.91	604.74		34.14	233.17	Edwards and Comanche Peak Limestone
4	604.74	32.85		267.31	571.89	Walnut
5	32.85	-7.97		839.20	40.82	Glen Rose
6	-7.97	-215.15		880.02	207.18	Hensell
7	-215.15	-278.04		1,087.20	62.89	Pearsall, Cow Creek Limestone and Hammett Shale
8	-278.04	-		1,150.09	-	Hosston

*Depths / Thicknesses are not to scale

Disclaimer: This product is for informational purposes only and has not been prepared for or suitable for legal, engineering, or other purposes. All representations in this virtual bore represent only the approximate relative depths and thicknesses based on geological interpretation and extrapolation of available well data. Additional data may modify one or more of these formation surfaces. The Clearwater Underground Water Conservation District expressly disclaims any and all liability in connection herewith.

U. S. Geological Survey, Texas Water Science Survey

During the spring of 2013 the U.S.G.S gauging system was installed and the process of analyzing the data and recalibrating the system began. Through the year of 2016 the system was continuously fine-tuned to ensure accuracy of the data collected. This gauging system and relationship with the USGS has proved to be an important step forward in monitoring spring flow both now and well into the future. The image on the next page shows the 2016 stream flow data taken by the gauging system in Salado Creek.



The live data can be found online on our website.

http://www.cuwcd.org/salado-springs/salado-creek-gauges/

Baylor University, Department of Geology

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

In 2016 Baylor continued the 2015 project of analyzing the water quality and relevant data from drillers reports and surface geology studies of the Hensell formation of the Trinity aquifer within Bell County. This research is very important to the preservation of the Hensell aquifer as a freshwater resource in Central Texas.

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 FY16 which included the following issues:

• Research and guidance on permitting issues, spacing issues, rule interpretation, public hearing notices, meeting cancellation notices, conservation easements and topics allowed for discussion in closed session.

• Representation of groundwater districts at Texas Water Conservation Association Groundwater Sub-Committee on Desired Future Conditions.

• Research and guidance on the listing of the Salado Salamander, the process for comments and support of CUWCD as they engaged as a stakeholder with the Bell County Adaptive Management Coalition.

3. Other Services

Bell County Adaptive Management Coalition

The Board entered into an interlocal agreement beginning in fiscal year 2012 that continued into fiscal year 2016. CUWCD, the Bell County Commissioners Court, Village of Salado, Salado Water Supply Corporation, Baylor University Geologist - Dr. Joe Yelderman, U. S. Geological Survey - Texas Water Science Survey, and U.S.F.W.S. - Texas Fish and Wildlife Conservation Office collectively contributed $51,000 through FY16 to evaluate current science and to develop new science regarding the Edwards (BFZ) aquifer and the Salado Salamander habitat. The District defends the position that regulating mechanisms are in place (by CUWCD) on spring flow to protect the specie.

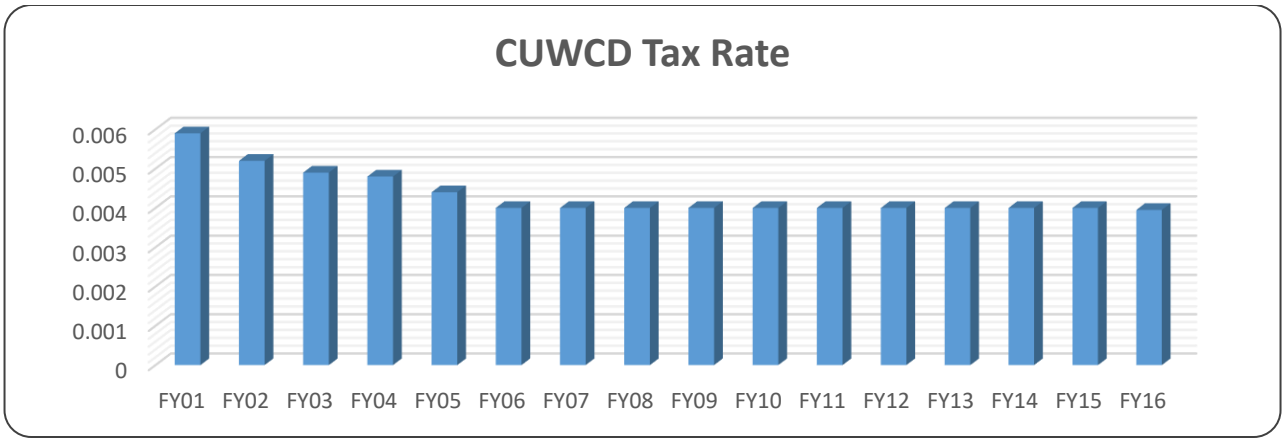
Alton D. Thiele, P.C.

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

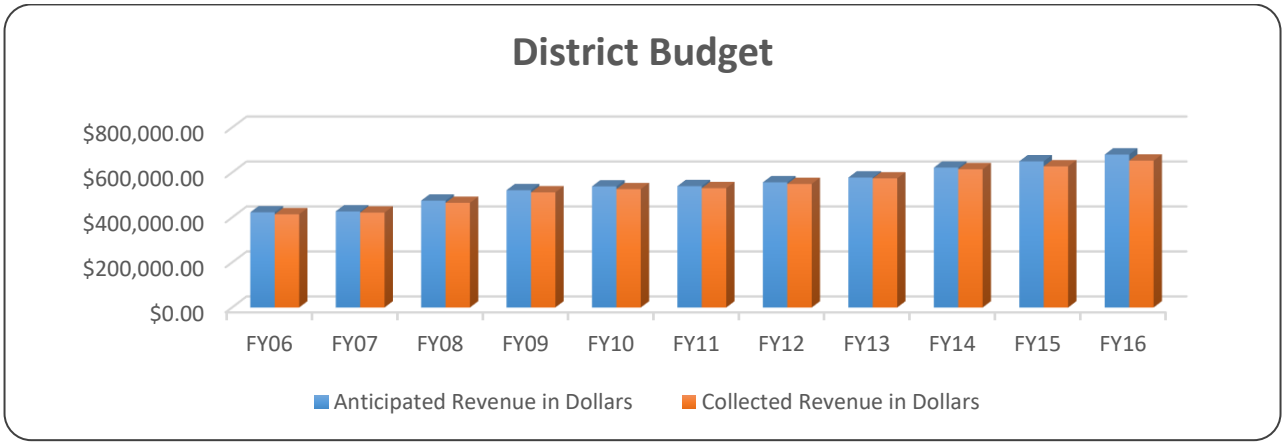
B. Financial Items

1. Budget and Tax Rate

The adopted tax rate for FY16 was $0.00395/$100 valuation. The Board voted to lower the tax rate for the first time in nine fiscal years. 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 2016 to develop an operating budget for the upcoming fiscal year (FY17) and to set the corresponding ad valorem tax rate. The Board voted to lower the tax rate for FY17 to $0.00392/$100 valuation.



The Budget for FY16 was $680,406.00, actual income collected was $653,087.87 and ended with the adjusted income of $765,587.87. On June 8, 2016, the Board voted and approved the construction of an onsite storage facility, therefore, $103,500 was moved from reserve funds to capital improvements. The total expenditures were $550,728.16. No payments for the construction of the onsite storage facility were made in FY16, therefore, the district was able to end the year under budget by $205,859.71. The Board prescribed closing the year with $205,859.71 being returned to the Reserve Fund.



The approved budget for FY16, along with the schedule of revenues and expenditures is attached as Appendix A.

2. Financial Audit

An annual audit of the District's finances is required by Chapter 36.153 of the Texas Water Code to determine the financial condition of the district. Alton D. Thiele, P.C., Certified Public Accountant located in Belton, Texas provided the 2016 annual financial audit for the District. The audit began immediately at the closing of FY16 on September 30, 2016 and they concluded their audit and submitted their findings to the District in February 2017.

See Appendix B for FY16 Financial Audit.

Online: http://www.cuwcd.org/public-records/audits/

C. Miscellaneous Policies / Issues

1. District Rule Amendments

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

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

2. Bylaws Revised

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

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

D. Board of Directors

1. District Officers

The Board of Directors, per District bylaws, elect officers annually at the first board meeting of the calendar year. The FY 2016 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.

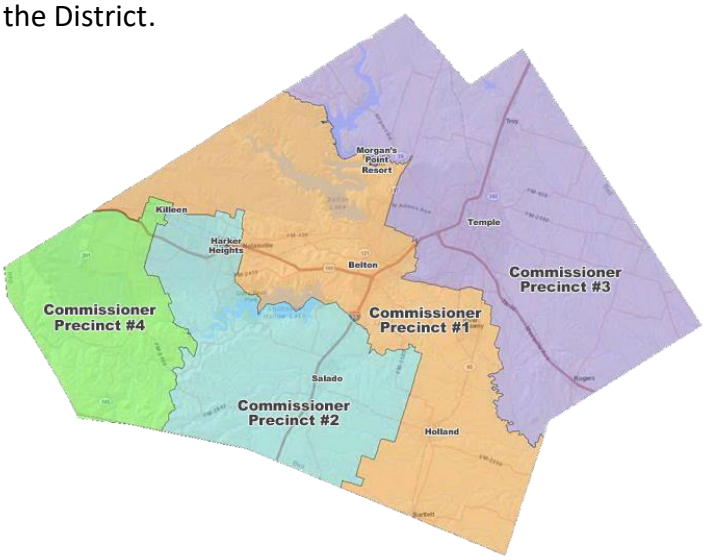
Leland Gersbach, President – Precinct 1

Wallace Biskup, Vice President – Precinct 3

Judy Parker, Secretary – Precinct 4

Gary Young, Director – Precinct 2

David Cole, Director – At Large



2. Meetings - FY16 (Oct 2015-Sept 2016)

The Board of Directors held 13 Board meetings and 1 informational meeting in FY16. The Workshops and regular Board meeting agendas included discussion and presentations on the topics listed below.

- Presentations by USGS Water Science Group
- Presentations by Baylor University regarding current status of the Edwards (BFZ) Aquifer
- Legislative updates
- Conduct hearings on drilling and operating permits
- Salado Salamander issues as it pertains to CUWCD's governance of groundwater
- Presentations by LBG-Guyton regarding the proposed Desired Future Conditions
- Updates to the District Rules and new Management Plan were adopted

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

3. Public Advisory Committee

The Public Advisory Committee (PAC) serves as a liaison between the Clearwater Board and the residents of Bell County. Each Board member selects one person to serve for a one-year term. The public advisory members meet as needed, and regularly attend the monthly Board meetings.

Throughout FY16, most PAC members regularly attended the Clearwater Board meetings. The PAC has provided valuable comments to the Board members at these meetings and they continue to value the input from the PAC. The Board can assign tasks to them as needed.

Tom Madden	-	Precinct 1
Henry Bunke	-	Precinct 2
Marvin Green, PAC Chair	-	Precinct 3
Bradley Ware	-	Precinct 4
Bill Schumann	-	At-Large

E. Management Plan

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

3. Management Plan Requirements

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

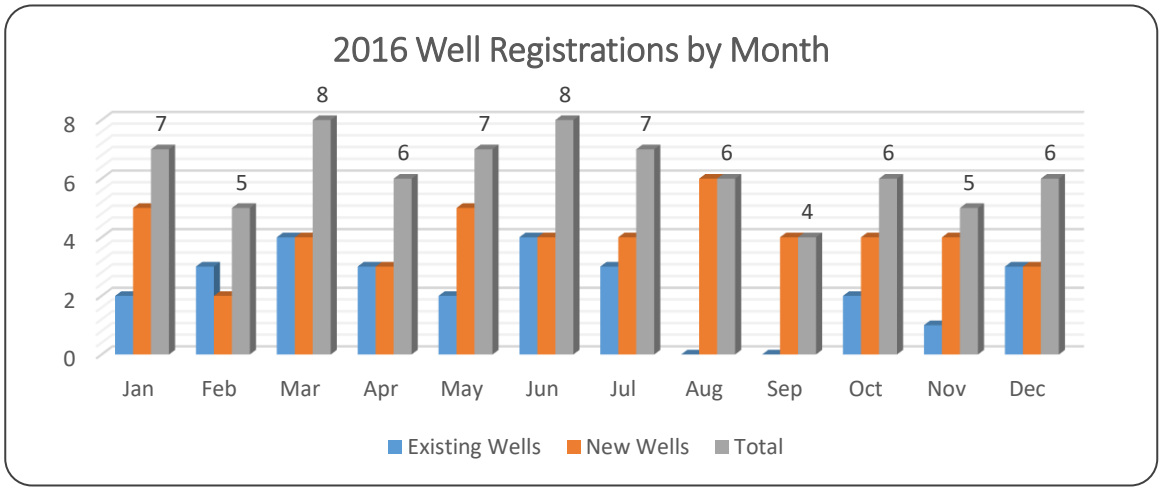
A. Providing the Most Efficient Use of Groundwater

1. Well Registrations

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

Objective Satisfied

During calendar year 2016, 75 wells were registered. The tables below summarize well registration and permitting activity from January 1, 2016 through December 31, 2016.



Appendix C for Master Registration Table

2. Permitted Well Applications

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

Objective Satisfied

Of the 75 wells registered in 2016, only 9 of those were classified as non-exempt. The Table below summarizes the non-exempt wells or permits that were approved during 2016 and the corresponding permits that were issued where applicable.

Non-Exempt Permitted Well Registrations for 2016 Calendar Year

Well #	Land Owner	Ac-Ft / Year	Aquifer	Use	Permit Type
N1-16-001P	Richard Ross	0.70	Middle Trinity	Domestic	Drilling & Operating
N1-16-004P	Michael Maples	0.39	Middle Trinity	Domestic	Drilling & Operating
N1-16-005P	Michael Maples	0.39	Middle Trinity	Domestic	Drilling & Operating
N1-16-006P	Ronald Ham	0.60	Middle Trinity	Domestic	Drilling & Operating
N1-16-007P	Wells Fargo Bank N.A.	0.79	Alluvial	Domestic	Drilling & Operating
N2-16-001P	Sparta Plaza	0.12	Edwards Equivalent	Domestic	Operating Permit
N2-16-002G	Charles Dunifer	0.60	Edwards BFZ	Ag/Irrigation	Operating Permit

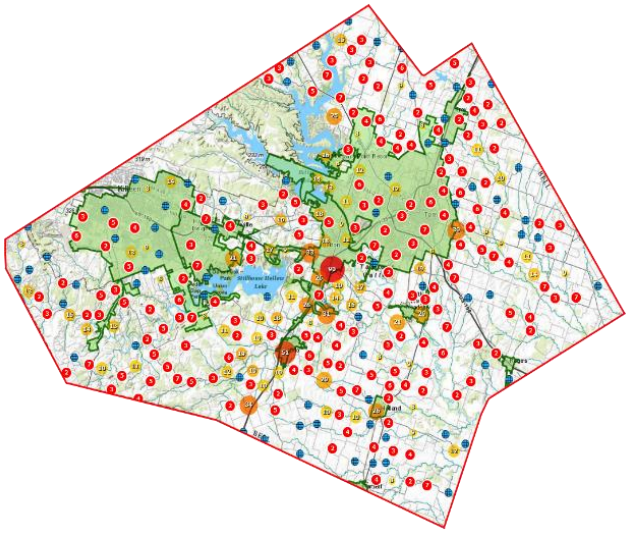
3. Groundwater Database

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

Objective Satisfied

District GIS Database

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



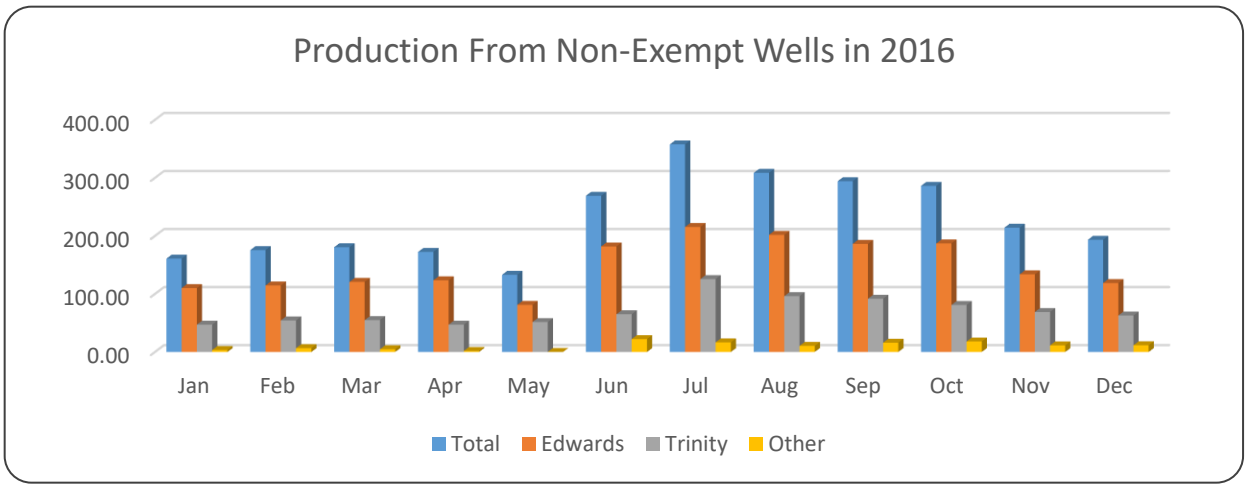
Non-exempt Well Production

The District continued collecting data from non-exempt wells during 2016. 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 2016, 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.

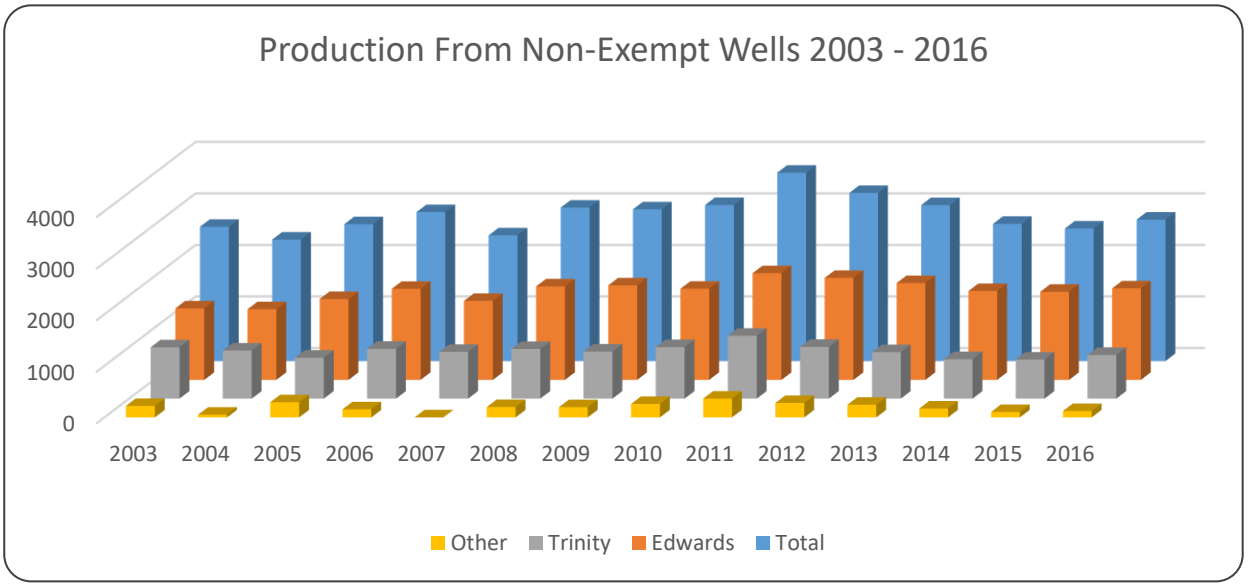
2016 Permitted Wells

	Permitted Ac-Ft	# Permitted Wells	Actual Use Ac-Ft	# Active Permitted Wells	% Usage
Edwards (BFZ)	2,509.26	55	1,775.78	42	70.77%
Trinity (total)	3,504.99	55	846.96	41	24.17%
Glen Rose	182.05	6	24.39	3	20.30%
Hensell	462.08	27	99.61	20	21.56%
Hosston	2,860.86	22	722.96	18	25.27%
Other Aquifers	578.45	19	123.71	10	21.39%
Total	6,592.70	129	2,746.45	92	41.66%

The following chart shows 2016 production by month and aquifer. Production was at its highest level during the month of August with a monthly withdrawal of 357.79 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 2016 (92 wells) is shown compared to production in years 2003 through 2016. Overall production in 2016 was 2,746.45 ac-ft which is slightly higher than the total production in 2015. The Edwards (BFZ) had a total production for 2016 of 1,775.78 ac-ft, total Trinity aquifer production was 846.96 ac-ft, and other formations produced 123.71 ac-ft of water.



See Appendix D for 2016 Well Production Report

Groundwater Transport

During 2016, six entities in Bell County transported groundwater outside the District. A total transport of 48.23 ac-ft. occurred from the Edwards BFZ aquifer and 103.35 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 $1,366.63 for 2016.

Entity	Aquifer	County	Ac-Ft	Gallons	Fee
Bell-Milam-Falls WSC	Lower Trinity	Falls, Milam, Williamson	99.84	32,533,800	$813.35
Central Texas WSC	Lower Trinity	Falls, Milam	16.18	5,273,640	$131.84
East Bell WSC	Lower Trinity	Falls	1.16	376,549	$9.41
Jarrell Schwertner WSC	Edwards (BFZ)	Williamson	48.23	15,716,407	$392.91
Little Elm Valley WSC	Lower Trinity	Falls	1.84	599,509	$14.99
O&B WSC	Lower Trinity	Falls	0.51	165,352	$4.13
		TOTAL	167.76	54,665,257	$1,366.63

Water Loss in Public Water Systems

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

Water leaking from a supply line

Bell County Water Loss 2011-2016

Entity	2016 Loss (% of water)	2015 Loss (% of water)	2014 Loss (% of water)	2013 Loss (% of water)	2012 Loss (% of water)	2011 Loss (% of water)
Armstrong WSC	15.74	15	13	N/R*	N/R*	N/R*
Bell Co. WCID #2	8.34	11	9	12.54	13.80	12.60
Bell Co. WCID #5	10.64	14	15	9.00	12.00	13.65
Bell-Milam-Falls WSC	32.06	26	34	26.45	22.00	7.00
Central Texas WSC	9.25	NA	NA	NA	NA	NA
City of Troy	9.94	N/R*	24.5	33.00	8.07	N/R*
East Bell WSC	8.23	14.64	13.71	17.04	18.00	22.01
Jarrell-Schwertner WSC	50.72	56.45	54.25	48.72	38.00	30.20
Little Elm Valley WSC	25.30	33	27	23.75	21.00	22.51
Moffat WSC	10.43	16	6.37	4.16	6.90	5.70
Oenaville/Bellfalls WSC	15.29	16.6	14.47	9.64	11.46	9.97
Pendleton WSC	23.94	17.23	22.73	23.18	18.00	14.78
Salado WSC	8.80	9.8	9.6	14.47	8.00	5.73

** 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, 2016. Most of the exempt wells in Bell County are used for domestic purposes and their use estimate assumes 176.94 gallons/person per day (TWDB estimate of domestic use outside of a municipal water system) and 2.90 persons/household (U.S. Census - Bell County Average 2008-12). Exempt well use estimate factors out all plugged, capped, monitor and inactive wells in the database.

2016 Exempt Well Production

	Reserved	Estimated Use*	# Wells
Edwards (BFZ)	825 ac-ft	455 ac-ft	760
Trinity	1,419 ac-ft	789 ac-ft	1,332
Other Aquifers	N/A	926 ac-ft	1,492
Total	2,244 ac-ft	2,170 ac-ft	3,584

** Domestic use estimate assumes 176.94 gallons/person per day (TWDB estimate of domestic use outside of a municipal water system) and 2.90 persons/household*

(U.S. Census - Bell County average 2008-12)

See Appendix E for 2016 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)	1,775.78	70.77	455	55.15	2,230.78	34.48
Trinity	846.96	24.17	789	55.53	1,635.96	23.15
Other Aquifers	123.71	21.39	926	N/A	1,049.92	N/A
Total	2,746.45	41.66	2,170	55.44	4,916.66	28.56

The chart above shows that overall, exempt wells account for approximately 55.44% of all the groundwater produced in Bell County. In the Trinity, 55.60% of production is attributed to exempt wells and in the Edwards BFZ, exempt wells account for 55.15% of groundwater production.

Overall, production from the Edwards BFZ aquifer accounts for 34.48% of total groundwater used in Bell County and the Trinity aquifer accounts for 23.15% of total groundwater used in Bell County.

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

Aquifer	MAG Modeled *	Reserved for Exempt	Managed	HEU Permit	Operating Permit	Remaining MAG
Edwards (BFZ)	6,469	825	5,644	2,209.70	299.56	3,134.74
Trinity	7,068	1,419	5,649	1,502.60	2,002.39	2,048.01
Paluxy	96			0	0	
Glen Rose (Upper)	880	693	187	61.90	120.15	4.95
Hensell (Middle)	1,099	548	551	259.30	202.78	88.92
Hosston (Lower)	4,993	178	4,815	1,181.40	1,679.46	1,954.14

** 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 2016 Edwards and Trinity Aquifer Status Reports

4. Annual Newsletter

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

Objective Satisfied

Annually, the District publishes a newsletter and mails it to registered well owners in Bell County. In 2016 the total number of newsletters printed were 3,350 with over 3,283 copies directly mailed to well owners. The others are handed out to people that come into the office and electronic copies are emailed out to permit holders and other interested parties.

See Appendix G for Annual Newsletter.

B. Controlling and Preventing Waste of Groundwater

Outreach and Education

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

Objective Satisfied

District staff is available to speak to any group within our geographical boundaries. In 2016, District staff reached over 1,287 adults and children in Bell County directly through giving presentations and making contact at event booths. We often give power point presentations to adult groups explaining the District and how we function along with covering important water topics like conservation and watershed management.

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

See Appendix H for Education and Outreach Events.

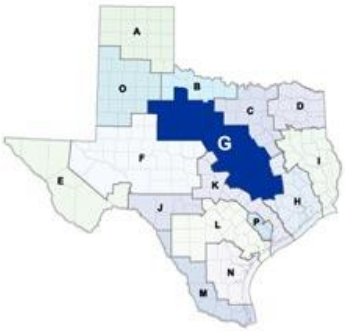
C. Addressing Conjunctive Surface Water Management Issues

Regional Planning Process Participation

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

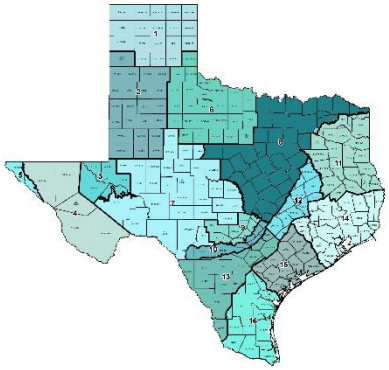
Objective Satisfied

During FY16, District Representative Judy Parker and District General Manager Dirk Aaron attended the scheduled meetings listed below. Judy Parker was also elected by the GMA8 Membership to represent the Groundwater Management Area as an appointed member of Region G.



October 7, 2015	Attended	April 27, 2016	Attended
November 4, 2015	Attended	September 14, 2016	Attended
April 6, 2016	Attended		

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



November 18, 2015	Attended	April 1, 2016	Attended
February 17, 2016	Attended	September 29, 2016	Attended
March 23, 2016	Attended		

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

Monitoring Water Quality

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

Objective Satisfied

The District has an in-house water quality lab and offers a free screening service to registered well owners. Testing parameters include coliform bacteria; alkalinity; conductivity / total dissolved solids; fluoride; hardness; nitrate; nitrite; pH; phosphate; and sulfate. During FY16, the staff conducted screening on 29 groundwater samples brought in by well owners. Four samples tested were from the Edwards (BFZ) aquifer, one samples from the Upper Trinity, eighteen samples from the Middle Trinity, two samples from the Lower Trinity, and four samples from other formations. In FY2015, USGS conducted water quality testing of the three layers of the Trinity aquifer. In FY2016, USGS conducted synoptic spring sampling of the 6 spring orifices of the Salado Springs.

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 FY16, 1 sample was sent out for certified testing.

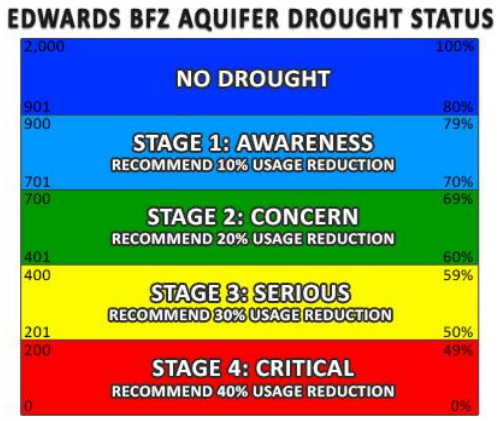
A summary of the well screening results are shown in Appendix I.

E. Addressing Drought Conditions

The District's Management Plan requires that the General Manager, Staff and Board of Directors review the District's drought status on a monthly basis. The decisions to declare drought levels per the Districts Drought Management Plan approved December 17, 2009, are reviewed weekly by the General Manager. The Drought Management plans are designed to reflect conditions of the Trinity and Edwards (BFZ) Aquifers independently of each other based on the specified triggers (PDI and/or Spring Flow).

1. Monitor Drought Conditions in the Edwards Aquifer

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



Objective Satisfied

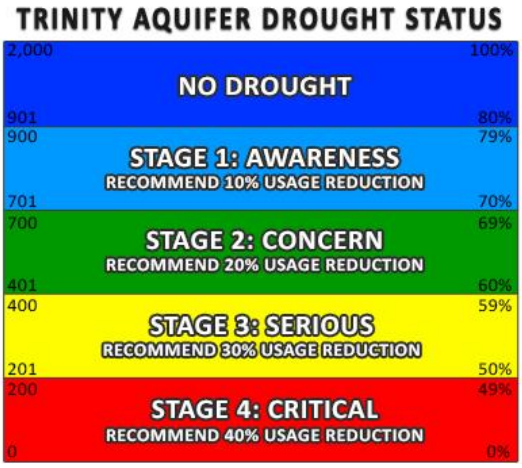
Under the Edwards BFZ Drought Management Plan, a drought stage is triggered when either the Precipitation Deficit Index (PDI) is less than a drought state trigger condition exceeding for a period of 28 consecutive days and shall be reduced or terminated when the PDI is greater than the trigger condition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

Below are the declared stages during the fiscal year.

Date	Declared Drought Stage	Salado Creek Acre ft/Month	Salado Creek CFS	PDI Total	PDI % Total
10/14/2015	Stage 1 - Awareness	1273	21.4	39.04	118.30
12/8/2015	Stage 1 - Awareness	5688	95.6	49.44	149.82
5/9/2016	No Drought	3558	59.8	52.10	157.86
6/6/2016	No Drought	99,253	1668	50.19	152.07
8/8/2016	No Drought	2,606	43.8	45.31	137.29
9/13/2016	No Drought	3,654	61.4	52.25	158.34

2. Monitor Drought Conditions in the Trinity Aquifer

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



Objective Satisfied

Under the Trinity Aquifer Drought Management Plan, a drought stage is only to be triggered when the Precipitation Deficit Index (PDI) is less than a drought state trigger condition exceeding for a period of 28 consecutive days and shall be reduced or terminated when the PDI is greater than the trigger condition exceeding for a period of 42 consecutive days.

Below are the declared stages during the fiscal year.

Date	Declared Drought Stage	PDI Total	PDI % Total
10/1/2014	Stage 2 – Concern	30.33	91.92
11/19/2014	Stage 1 – Awareness	32.39	98.15
12/8/2014	Stage 1 - Awareness	32.35	98.01
2/17/2015	Stage 1 - Awareness	35.66	108.06
5/13/2015	No Drought	40.72	123.37
6/8/2015	No Drought	43.35	131.37
7/15/2015	No Drought	43.61	132.14
8/7/2015	No Drought	41.34	125.26
9/8/2015	No Drought	41.11	124.78

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

1. Conservation

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

Objective Satisfied

The District's Management Plan requires promotion of conservation by one outreach method/activity. During 2016, the District exceeded this requirement by aggressive outreach through classroom presentations, District's website, and other public presentations such as the annual Water Symposium. District staff reached over 1,287 adults and children in Bell County directly through giving presentations and making contact at event booths where conservation materials were both discussed and handed out.

See Appendix H for Education and Outreach Events.

2. Rainwater Harvesting

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

Objective Satisfied

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

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

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

3. Brush Control

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

Objective Satisfied

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

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

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

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

4. Recharge Enhancement

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

Objective Satisfied

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

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

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

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

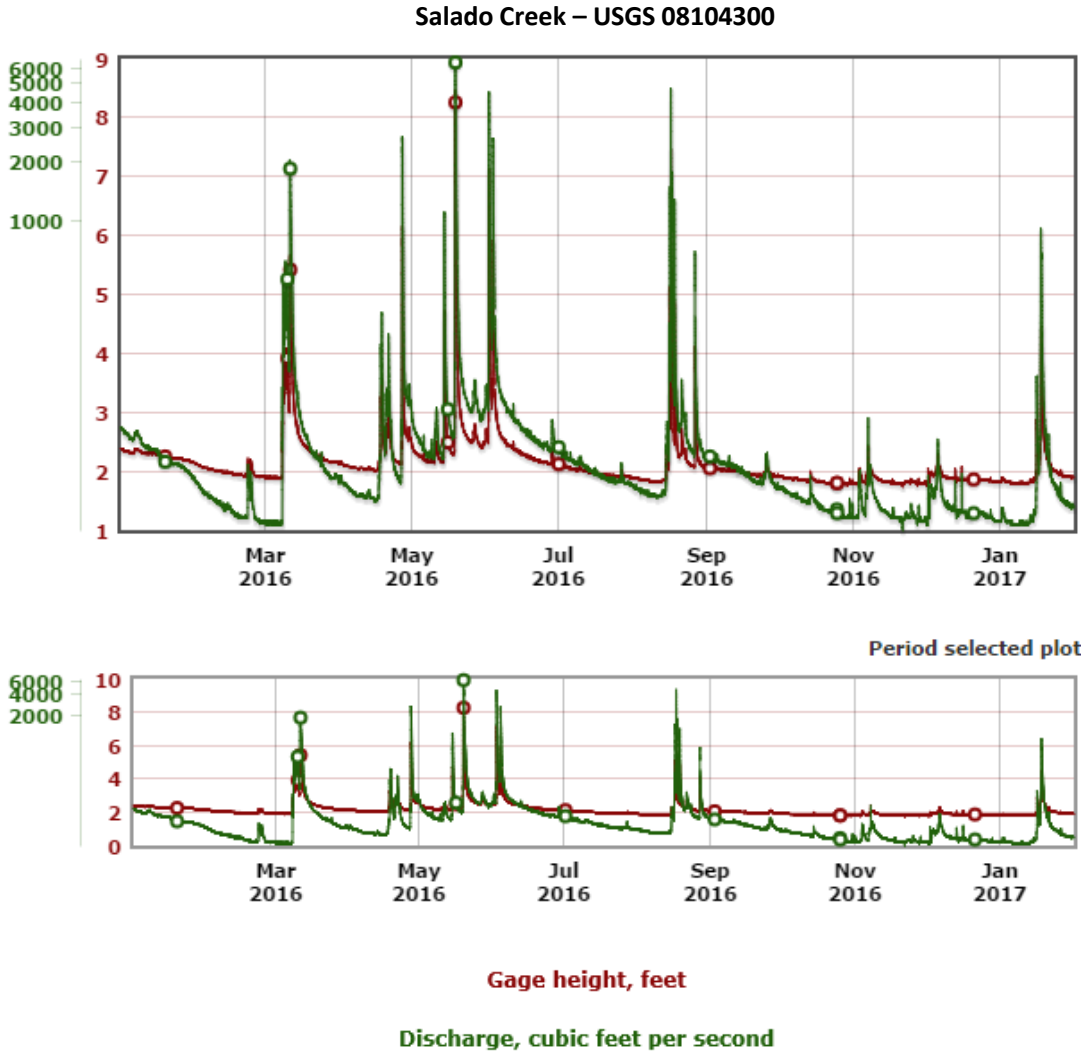
1. Salado Springs

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

Objective Satisfied

The gauges in the Salado Creek have been an important mechanism to protect spring flow. The District began collecting data from the Salado Creek stream flow gauges during FY08 with the assistance of multiple contractors. During the spring of 2013 an upgraded gauge package by the USGS Water Science Group was installed and the process of analyzing the data and recalibrating the system began. This process was lengthy, but essential to ensure accuracy of the data collected. The new gauges and relationship with the USGS have proved to be an important step forward in monitoring spring flow.

Below is a screen shot of the spring flow data for the calendar year 2016.



The live data can be found online on our website.

http://www.cuwcd.org/salado-springs/salado-creek-gauges/

2. (a) Static Water Level Measurements

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

Objective Satisfied

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

Comparing the water level measurements taken by the District with those taken by the TWDB is sometimes difficult due to differences in measurement procedures and equipment. Clearwater

primarily uses a Sonic Wave Meter and only utilizes an e-line if necessary. Large producers are asked to turn the pump off at least one hour prior to the measurement to allow the aquifer levels time to stabilize. TWDB typically uses a steel tape or an airline and does not request the pump to be turned off. During calendar year 2016, the District took 14 water level measurements from 45 wells.

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

A copy of the measurements is included under Appendix M.

2. (b) Changes in Water Levels

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

Objective Satisfied

The District prepares a monthly status report (Appendix F – Trinity Aquifer Status Report 2016) that explains the status or 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.

4. Miscellaneous Activities

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

A. Abandoned Wells

The District continues to coordinate with the Texas Department of Licensing and Regulation (TDLR) to identify and investigate reports of abandoned wells. After initial investigation, staff refers abandoned wells to TDLR for further investigation, determination of corrective action, and enforcement. The District did not refer any abandoned wells to TDLR during the calendar year 2016.

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 2016 a total of 38 wells were plugged in Bell County.

B. Bell County Water Symposium

Clearwater sponsored its fifteenth annual water symposium on November 16, 2016 at the Texas A&M University - Central Texas Campus. Event partners included Bell County Engineer's Office, HALFF Associates, LBG-Guyton Associates, Lloyd Gosselink Attorneys at Law, and Texas A&M AgriLife Extension-Bell County.

Topics that were discussed:

- *Understanding Groundwater Issues and Challenges Across the State* - Sarah Rountree Schlessinger, Executive Director, Texas Alliance of Groundwater Conservation Districts and Ty Embrey, Attorney, Lloyd Gosselink Rochelle and Townsend
- *"State of the District"* - Leland Gersbach, Board President, Clearwater UWCD and Dirk Aaron, General Manager, Clearwater UWCD
- *"Finding a Balance between Regulation, Management and Property Rights in the Central Carrizo-Wilcox"* - Gary Westbrook, General Manager, Post Oak Savannah Groundwater Conservation District
- *Understanding the Geology of the Aquifers for ASR* - James Beach, P.G., Senior Vice-President, LBG-Guyton Associates
- *ASR: "Its State in the STATE"* - Matt Webb, Hydrologist, Texas Water Development Board
- *"Have You Met My Water Management Friend ASR?" An Introduction to Aquifer Storage and Recovery in Texas* - Aaron Collier, P.G., Vice President, Collier Consulting Inc.
- *Looking Closely at Aquifer Storage and Recovery for Central Texas* – Dr. June Wolfe, Associate Research Scientist, Texas A&M AgriLife Research
- *Youth Water Initiative for Texas, 4-H_2O Ambassador Program* - Sarah Hamm, Executive Director, Texas 4-H Foundation and David Smith, 4-H_2O Coordinator, Texas AgriLife Extension Service
- *An Evolving Understanding of the Hosston Layer of the Trinity Aquifer* - Mike Keester, Senior Hydrogeologist, LBG-Guyton Associates
- *"What We Now Know About the Northern Segment of the Balcones Fault Zone Edwards Aquifer"* - Stephanie Wong, Graduate Assistant Department of Geology, Baylor University and Dr. Joe Yelderman, Professor, Department of Geosciences, Baylor University
- *"What's New in the Lampasas River Watershed Partnership and the Status of Other Bell County Rivers and Streams"* - Lisa Prcin, Research Associate, Texas A&M AgriLife Research
- *Edwards Aquifer Geo-Chemistry Investigation* - Chris Braun, US Geological Survey
- *Evaluation* - Whitney Grantham, Natural Resource Extension Agent, Texas A&M AgriLife Extension

The District set up a display booth and distributed water conservation packets as well as other information on water quality protection and information on the aquifers in Bell County. Approximately 135 people attended the symposium.

Refer to Appendix N for an agenda of the meeting.

C. Internet Site

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

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

- Current Drought Status
- Educational Resources
- Texas Drought Monitor
- Salado Creek Gauges
- District Rules
- 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 http://www.cuwcd.org

5. Summary

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

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

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

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

Appendix A

Clearwater Underground Water Conservation
Adopted Budget FY2016

REVENUE	
Application Fee Income	20,000.00
Bell CAD Current Year Tax	653,906.00
Bell CAD Deliquent Tax	5,000.00
Interest Income	500.00
Transport Fee Income	1,000.00
Total Income	**680,406.00**
EXPENDITURES	
Administrative Expenses	
Audit	6,000.00
Conferences & Prof Development	3,000.00
Contingency Fund	53,672.00
Director Expenses	7,500.00
Director Fees	12,000.00
Dues & Memberships	2,500.00
Election Expense	0.00
GMA 8 Expenses	15,500.00
Meals	1,000.00
Mileage Reimbursements	7,000.00
Travel & Hotel	3,000.00
Total Administrative Expenses	**111,172.00**
Salary Costs	
Administrative Assistant	44,290.00
Educational Coord/Support Tech	43,860.00
Manager	73,440.00
Part Time/Intern	20,012.00
Health Insurance	18,000.00
Payroll Taxes & Work Comp	19,900.00
Retirement	8,172.00
Payroll Expenses	125.00
Total Salary Costs	**227,799.00**
Operating Expenses	
Advertisement	3,500.00
Appraisal District	7,200.00
Clearwater Studies	151,560.00
Spring Flow Gage System	16,000.00
Computer Consulting	14,800.00
Computer Licenses/Virus Prtctn	1,500.00
Computer Repairs and Supplies	1,500.00
Computer Software & Hardware	5,500.00
Copier/Scanner/Plotter	6,000.00
Educational Outreach/Marketing	14,500.00
Legal	43,500.00
Office Supplies	3,000.00
Permit Reviews	20,000.00
Postage	2,500.00
Printing	3,900.00
Reserve for Uncollected Taxes	20,000.00
Storage Unit	650.00
Subscriptions	850.00
Total Operating Expenses	**316,460.00**
Total Facility Costs	**13,375.00**
Total Utilities	**11,600.00**
Total Expense	**680,406.00**

For a detailed copy of the FY16 Budget, please contact CUWCD at 254-933-0120

8/31/2015

Appendix B

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

COMMUNICATIONS WITH THOSE CHARGED WITH GOVERNANCE

SEPTEMBER 30, 2016

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

ALTON D. THIELE, P.C.

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

January 9, 2017

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

We have audited the basic financial statements of Clearwater Underground Water Conservation District (the District) as of and for the year ended September 30, 2016. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter dated August 16, 2016. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Findings
Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Clearwater Underground Water Conservation District are described in NOTE 1 to the financial statements. Two new accounting policies (Note – 1.D.5) were adopted and the application of existing policies was not changed during the fiscal year ended September 30, 2016. We noted no transactions entered into by the District during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

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

> Management's estimate of the useful lives of its capital assets is significant due to the very nature of determining how long an item might last. We evaluated the key factors and assumptions used to develop these estimates in determining that it is reasonable in relation to the financial statements taken as a whole.

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosure affecting the financial statements was:

> The disclosure of the expense of the compensation and benefits since this expense is estimated to be over one third of the total annual budget comparatively.

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

Difficulties Encountered in Performing the Audit

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

Corrected and Uncorrected Misstatements

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

Disagreements with Management

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

Management Representations

We have requested certain representations from management that are included in the Management Representation Letter dated January 9, 2017.

Management Consultations with Other Independent Accountants

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

Other Audit Findings or Issues

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

One issue of note pertains to the District's investment in TexPool. While TexPool complies implicitly with the Texas Public Funds Investment Act, TexPool still disclaims the security of funds invested with the entity as subject to loss. The District has a fiduciary responsibility to safeguard the public funds it receives. Governmental Investment Pools are not subject to the custodial risk provision as stated in the *Notes to the Financial Statements*, page 14; however, the risk of loss still exists.

Other Matters

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

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

Very truly yours,

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

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

BASIC FINANCIAL STATEMENTS AND INDEPENDENT AUDITORS' REPORT

SEPTEMBER 30, 2016

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

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
TABLE OF CONTENTS

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

INDEPENDENT AUDITORS' REPORT

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

We have audited the accompanying financial statements for the governmental activities and the aggregate remaining fund information of the Clearwater Underground Water Conservation District (the District), as of and for the year ended September 30, 2016, which collectively comprise the District's basic financial statements as listed in the table of contents, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net position of the governmental activities and the aggregate remaining fund information of Clearwater Underground Water Conservation District, as of September 30, 2016, and the respective changes in fund balances in conformity with accounting principles generally accepted in the United States of America.

Report Issued In Accordance with *Government Auditing Standards*

In accordance with *Government Auditing Standards,* we have also issued our report dated January 9, 2017, on our consideration of the District's internal control over financial reporting (internal control) and on our tests of its compliance with certain provisions of laws, regulations, contracts, and other matters. The purpose of that report is to describe the scope of our testing of internal control and compliance, and the results of that testing, and not to provide an opinion on internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 5 and budgetary comparison information on page 17 be presented to supplement the financial statements. Such information, although not a required part of the basic financial statements, is required by the Governmental Accounting Standards Board (GASB), who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the District's basic financial statements. The Texas Supplementary Information, on pages 18 through 21, is presented for purposes of additional analysis and is not a required part of the basic financial statements of the District. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly presented in all material respects, in relation to the basic financial statements taken as a whole.

Belton, Texas
January 9, 2017

The management of the Clearwater Underground Water Conservation District (the District), offers readers of the District's annual financial report this narrative overview and analysis of the District's financial performance during the fiscal year ended September 30, 2016. This discussion and analysis is intended to be an easily readable analysis of the District's financial activities based on currently known facts, decisions, and conditions. Please read it in conjunction with the Independent Auditors' Report and the District's basic financial statements and the related notes.

FINANCIAL HIGHLIGHTS

The District's total net position,	$ 1,127,830
Cash and investments,	$ 705,579
Deferred Inflows of Resources	$ 20,559
Total tax revenues,	$ 640,702
Operational expenditures,	$ 568,477

OVERVIEW OF THE FINANCIAL STATEMENTS

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

REPORT LAYOUT

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

These *Government-wide Financial Statements* (pages 6–9) are designed to be more corporate-like in that all activities are consolidated into a total for the District. The totals represent the *Statement of Net Position*, which presents the assets, liabilities, with the difference of the two reported as net position and the *Statement of Activities* which presents information on how the District's net position changed during the year.

The *Notes to the Financial Statements* (pages 10-14) provide additional information that is essential to a full understanding of the data provided in the government-wide basic financial statements.

Required and other supplemental information (pages 16-21) is also provided for additional information and analysis.

FINANCIAL ANALYSIS OF THE DISTRICT

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

	2016	2015
Current Assets	$ 723,246	$ 645,189
Capital Assets (Net of Accumulated Depreciation)	425,143	442,892
Deferred Inflows of Resources	(20,559)	(21,241)
Liabilities	-	(23,621)
Net Position: Unreserved	(702,687)	(600,327)
Net Investment in Capital Assets	(425,143)	(442,892)
Total Net Position	$ (1,127,830)	$ (1,043,219)

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

	2016	2015
Tax Revenue	$ 640,702	$ 609,566
Interest and Other Revenues	12,386	18,080
Expenditures	(568,477)	(574,059)
Change in Net Position	$ 84,611	$ 53,587

As shown in the above information, the District improved financially, overall. However, the District's change in net position increased by $ 31,024. With the operational expenditures of $(568,477), part of that was reported as depreciation of $(22,364). Capital outlay of $4,615 with the accumulated depreciation, created a decrease in the net investment in capital assets of $(17,749).

BUDGETARY HIGHLIGHTS

Actual tax revenues received were less than the budgeted tax revenues by $(33,204) or 5%. However, actual operational expenditures were 16% less than budgeted expenditures. This resulted in an increase in net position of $84,611. The budget was legally adopted according to established guidelines and the Board of Directors legally adopted amendments to individual budget items during the fiscal year. (See page 17 for details)

CAPITAL ASSETS

During the year, land was acquired, so that at September 30, 2016, the District had a net decrease in Capital Assets of $(17,749). The Net investment in Capital Assets at fiscal year-end was $425,143.

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

DEBT OUTSTANDING

The District had no long term debt as of the fiscal year ended September 30, 2016.

ECONOMIC FACTORS AND NEXT YEAR'S BUDGET AND RATES

The District's property tax rate for the 2016/2017 fiscal year (FY17) was lowered to $0.00392 per $100 valuation. The estimated taxable property value is 17,080,714,000 for total expected tax revenue of $669,564. Other Income and delinquent property taxes is estimated at $28,000. The District's budgeted expenditures for FY17 are expected to be $697,564 resulting in a balanced budget for the coming fiscal year.

FINANCIAL CONTACT

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

BASIC FINANCIAL STATEMENTS, WITH RELATED NOTES

AS OF SEPTEMBER 30, 2016

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

SEPTEMBER 30, 2016

	Governmental Funds		
	General Fund	Adjustments	Statement of Net Position
ASSETS			
Cash in Banks	$ 2,973		$ 2,973
Invested Funds	699,606		699,606
Receivables			
Taxes	20,559		20,559
Fees	108		108
Capital Assets (net of accumulated depreciation)			
Infrastructure		425,143	425,143
Total Assets	$ 723,246	$ 425,143	$ 1,148,389
DEFERRED INFLOWS OF RESOURCES			
Property Tax Revenue	$ 20,559		$ 20,559
LIABILITIES			
Liabilities			
Current and Non-current	$ -		$ -
Total Liabilities	-		-
FUND EQUITY			
Fund Balances			
Unreserved	702,687	(702,687)	-
Total Fund Equity	702,687	(702,687)	-
Total Liabilities and Fund Equity	$ 723,246		
NET POSITION			
Net Investment in Capital Assets		425,143	425,143
Unreserved		702,687	702,687
Total Net Position		$ 1,127,830	$ 1,127,830

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

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
RECONCILIATION OF THE GOVERNMENTAL FUNDS BALANCE SHEET TO THE STATEMENT OF NET POSITION
SEPTEMBER 30, 2016

Total Fund Balances for Governmental Funds (Page 6)		$ 702,687
Total Net Position Reported for Governmental Activities in the Statement of Net Position is Different Because:		
Capital assets used in governmental acitivites are not financial resources and therefore are not reported in the funds. Those assets consist of:		
Land, Infrastructure, and Easements	$ 425,143	
Total Capital Assets (See p10, Note 1.B.2 and p13 Note 3)		425,143
Total Net Position of Governmental Activities (Page 6)		$ 1,127,830

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

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
STATEMENT OF ACTIVITIES AND GOVERNMENTAL FUNDS REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE AND NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2016

	Governmental Funds		
	General Fund	Adjustments	Statement of Activities
EXPENDITURES			
Operations			
Director Fees	$ 11,250		$ 11,250
Administrative	19,897		19,897
Compensation and Benefits	219,219		219,219
Depreciation		22,364	22,364
Facilities Costs	22,637		22,637
Clearwater Studies	141,401		141,401
Legal and Professional	54,614		54,614
Collection Fees	7,294		7,294
Advertising	2,386		2,386
Other Operating Expenditures (net of relevant contributions)	67,415		67,415
Capital Outlay	4,615	(4,615)	-
Total Expenditures	550,728	17,749	568,477
REVENUES			
General Revenues			
Property Taxes	640,702		640,702
Permits, Licenses, and Other Fees	9,120		9,120
Interest and Other Income	3,266		3,266
Total Revenues	653,088		653,088
Excess (Deficiency) of Revenues over Expenditures	102,360	(17,749)	84,611
Change in Fund Balance/Net Position	102,360	(17,749)	84,611
NET POSITION			
Beginning of Year	600,327	442,892	1,043,219
End of Year	$ 702,687	$ 425,143	$ 1,127,830

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

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
RECONCILIATION OF THE GOVERNMENTAL FUNDS REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCE AND NET POSITION TO THE STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED SEPTEMBER 30, 2016

Net Change in Fund Balance - Total Governmental Funds (Page 8)		$ 102,360
The Change in Net Position Reported for Governmental Activities in the Statement of Activities is Different Because:		
Governmental funds report capital outlays as expenditures. In the Statement of Activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense.		
Capital assets reported as capital outlay in governmental fund statements:	4,615	
Depreciation expense reported in statement of activities:	(22,364)	
Amount by which capital outlays are greater (less) than depreciation in current period:		(17,749)
Change in Net Position of Governmental Activities (Page 8)		$ 84,611

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

NOTE 1 – SIGNIFICANT ACCOUNTING POLICIES AND BASIS OF ACCOUNTING

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

A. Reporting Entity

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

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

B. Government-wide and Fund Financial Statements

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

1. Governmental funds

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

2. Account groups

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

C. Basis of Accounting

All funds of the District use the accrual basis of accounting. Under this method, revenues are recorded when susceptible to accrual (i.e., both measurable and available). Funds are considered available when they are collectible in the current period or soon enough thereafter to pay current liabilities. All revenues of the District are susceptible to accrual. Expenditures, if measurable, are recognized as incurred.

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

1. Cash and Cash Equivalents

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

2. Budgets and Budgetary Accounting

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

3. Accounts Receivable

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

4. Capital Assets

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

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

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

5. Deferred Outflows/Inflows of Resources

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

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

6. Equity Classifications

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

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

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

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

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

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

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

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

7. Risks, uncertainties, and use of estimates

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

NOTE 2 – PROPERTY TAXES

Property taxes are levied October 1 on the assessed property value as of the prior January 1 for all real and business personal property located in the district in conformity with Subtitle E, Texas Property Tax Code. Taxes are due on receipt of the tax bill and are delinquent if not paid before February 1 of the year following the year in which imposed. On January 31 of each year, a tax lien attaches to property to secure the payment of all taxes, penalties, and interest ultimately imposed. The District's property taxes are billed and collected by the Tax Appraisal District of Bell County. Property tax revenues are considered available (1) when they become due or past due and receivable within the current period and (2) when they are expected to be collected during a 60-day period at the close of the District's fiscal year.

The net assessed value after adjustments, based on 100 percent of the assessed valuation of real and personal property within the District on the 2015 tax roll, was $16,526,207,088. The 2015 tax rate of $0.00395 per $100 valuation was assessed and allocated to the General Fund. The resulting tax levy was $ 652,785.

Deferred tax revenue is reported as deferred inflows of resources (Note 1.D.5 para 2) by the District on its Governmental Funds balance sheet under the General Fund and arises when potential revenue does not meet the "measurable" and "available" criteria for recognition in the current period. In subsequent periods, when both revenue recognition criteria are met, the liability for the deferred tax revenue is removed from the balance sheet and the revenue is recognized. The current Deferred Inflow of Resources is $20,559.

NOTE 3 – CHANGES IN CAPITAL ASSETS

A summary of changes in capital assets is as follows:

	Primary Government			
2016	Beginning investment	Increase	Retirements	Ending Investment
Capital Assets not Depreciated				
Land	$ 55,366	4,615		$ 59,981
Total not Depreciated	55,366	4,615		59,981
Capital Assets Depreciated				
Land Improvements	19,000			19,000
Building	304,470			304,470
Monitor Wells	50,238			50,238
Field Equipment	17,244			17,244
Office Equipment	59,939			59,939
Total Depreciated	450,891			450,891
Total Capital Assets	506,257			506,257
Accumulated Depreciation	(63,365)	(22,364)		(85,729)
Net Investment in Capital Assets	$ 442,892	$(17,749)		$ 425,143

NOTE 4 – CASH DEPOSITS AND INVESTMENTS WITH FINANCIAL INSTITUTIONS

The District's checking deposits were fully covered by federal depository insurance and Texas Treasury Safekeeping Trust Company (TexPool) investments at September 30, 2016, were not covered by federal depository insurance or pledged securities. In accordance with GASB Statement No. 31, *Accounting and Reporting for Certain Investments and External Investment Pools*, the District reports all investments at fair value.

The District's cash and invested funds at September 30, 2016, were as follows:

	General Fund
First State Bank of Central Texas	
Operating account	$ 2,973
TexPool Accounts	
LGI Pool	352,713
Prime	346,893
Total TexPool accounts	699,606
Total cash and invested funds	$ 705,579

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

Policies, Governing Deposits and Investments

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

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

Custodial Credit Risk – Deposits: This is the risk that in the event of bank failure, the District's deposits may not be returned to it. The District was not exposed to custodial credit risk since deposits, in the bank during the year ended September 30, 2016, were covered by depository insurance.

Custodial Credit Risk – Investments: This is the risk that, in the event of the failure of the counterparty, the District will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Investments are subject to custodial credit risk only if they are evidenced by securities that exist in physical or book entry form. Thus positions in external investment pools are not subject to custodial credit risk because they are not evidenced by securities that exist in physical or book entry form.

NOTE 5 – EMPLOYEE BENEFITS

A. Annual Leave

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

B. Sick Leave

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

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, 2016, the employer match was $ 7,731.

NOTE 6 - SUBSEQUENT EVENTS

District management has evaluated subsequent events through January 9, 2017; the date the financial statements were available to be issued. No change to the financial statements for the fiscal year ending September 30, 2016 is deemed necessary as a result of this evaluation.

REQUIRED AND OTHER SUPPLEMENTAL INFORMATION

ALTON D. THIELE, P.C.

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

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

Board of Directors
Clearwater Underground Water Conservation District
700 Kennedy Ct.
Belton, TX, 76513

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the financial statements of governmental activities and the aggregate remaining fund balance information of Clearwater Underground Water Conservation District (the District) as of and for the year ended September 30, 2016, and the related notes to the financial statements, which collectively comprise the basic financial statements, and have issued our report thereon dated January 9, 2017.

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

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

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

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

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

Belton, Texas
January 9, 2017

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

INDEX OF SUPPLEMENTAL SCHEDULES INCLUDED IN THIS REPORT

SEPTEMBER 30, 2016

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
GOVERNMENTAL FUNDS REVENUES, EXPENDITURES AND CHANGES IN NET POSITION - BUDGET TO ACTUAL
FOR THE YEAR ENDED SEPTEMBER 30, 2016

	General Fund				VARIANCE
	ADOPTED BUDGET	AMEND-MENTS	FINAL BUDGET	ACTUAL	Positive (Negative)
REVENUES					
Property taxes	$ 658,906	-	$ 658,906	$ 640,702	$ (18,204)
Application fee	20,000	-	20,000	8,000	(12,000)
Transport fee	1,000	-	1,000	1,120	120
Interest	500	-	500	3,266	2,766
Other income (expense)	-	-			-
Total revenues	680,406	-	680,406	653,088	(27,318)
EXPENDITURES					
Administrative expenses	111,172	35,850	147,022	35,547	111,475
Compensation and benefits	227,799	(8,580)	219,219	219,219	-
Clearwater studies	151,560	(5,544)	146,016	141,401	4,615
Educational outreach/marketing	14,500	(7,367)	7,133	7,133	-
Spring flow gage	16,000	(550)	15,450	15,450	-
Computer systems	29,300	(3,371)	25,929	25,929	-
Legal fees	43,500	6,713	50,213	50,213	-
Reserve for uncollected taxes*	20,000	(1,797)	18,203	-	18,203
Other operating expenses (net)	41,600	(15,516)	26,084	21,469	4,615
Depreciation	-	-	-	22,364	(22,364)
Capital expenditures*	-	2,500	2,500	7,115	(4,615)
Net loss of capital assets	-	-	-	-	-
Facility costs	13,375	2,204	15,579	15,579	-
Utilities	11,600	(4,542)	7,058	7,058	-
Total expenditures	680,406	(0)	680,406	568,477	111,929
Excess (deficiency) of revenues over expenditures	-		0	84,611	84,611
Change in net position				84,611	
NET POSITION					
Beginning of fiscal year				1,043,219	
End of fiscal year				1,127,830	
* Budget reserves for balance sheet items					
Reserve for uncollected taxes*	20,000	-	20,000	20,559	(559)
Capital expenditures*	-	2,500	2,500	7,115	(4,615)

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF GENERAL FUND EXPENDITURES
FOR THE YEAR ENDED SEPTEMBER 30, 2016

Current			
Compensation and benefits	$	219,219	
(Number of persons employed by the District: 2 - Full-time, 1 - Intern)			
Professional Services			
Auditing		4,400	
Legal		45,813	
Clearwater studies		141,401	
Utilities		7,058	
Facility costs		15,579	
Administrative expenses (including director fees)		35,547	
Capital outlay			
Acquisition of capital assets		4,615	
Net loss of capital assets (theft)		-	
Educational outreach/marketing		7,133	
Computer systems		25,929	
Other operating expenses		21,469	
Other expenditures (includes depreciation)		40,314	
TOTAL	$	568,477	(see page 8)

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF TEMPORARY INVESTMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2016

Governmental Funds	Pool / Type	Interest Rate	Maturity Date	Balance at End of Year
General Fund				
Local Government Investment Pools				
TexPool	449	0.3950%	Demand	$ 352,713
TexPool - Prime	590	0.7592%	Demand	346,893
TOTAL				699,606
Other accounts				
First State Bank of Central Texas - Operations Account	Transaction	N/A	Demand	-
TOTAL				-
TOTAL ALL ACCOUNTS				$ 699,606

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
ANALYSIS OF TAXES LEVIED AND RECEIVABLE
FOR THE YEAR ENDED SEPTEMBER 30, 2016

	Maintenance Taxes
Taxes receivable at October 1, 2015	$ 21,241
2015 Original tax roll, net of adjustments	640,020
Total to be accounted for	661,261
Tax Collections:	
Current year	(632,803)
Prior years	(7,900)
Total collections	(640,702)
Taxes receivable, September 30, 2016	$ 20,559
Taxes receivable by years:	
2009 and years prior to	$ 4,864
2010	1,251
2011	1,387
2012	1,593
2013	2,156
2014	3,066
2015	6,242
Taxes receivable, September 30, 2016	$ 20,559

	2015	2014	2013
Property Valuations	$ 16,526,207,088	$ 15,564,029,000	$ 14,848,548,113
Tax rates per $100 valuation:			
Debt service tax rates	N/A	N/A	N/A
Maintenance tax rates	0.00395	0.004	0.004
Total tax rates per $100 valuation:	0.00395	0.004	0.004
Gross Original tax levy	$ 652,785	$ 622,561	$ 593,957
Percent of taxes collected to taxes levied**	98.15%	97.91%	102.63%

** Calculated as taxes collected from current and previous years divided by the original tax levy.

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF BOARD MEMBERS, CONSULTANTS, AND KEY PERSONNEL
SEPTEMBER 30, 2016

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

District Business Telephone Number: (254) 933-0120

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

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

Name and addresses	Precinct and Terms of Office 4-year terms	Fees Paid as of 09/30/2016	Expense Reimbursement	Title as of 09/30/2016	Property owner within the District
Board Members					
Leland Gersbach 7872 Hackberry Holland, TX 76534	Precinct 1 2017 to 2021	Waived	-	President	Yes
Gary Young 1314 Creek View, Salado, TX 76571	Precinct 2 Dec. 2015 to 2018	$2,550	-	Director	Yes
Wallace Biskup PO Box 265 Troy, TX 76579	Precinct 3 2017 to 2021	$2,400	$118	Vice President	Yes
Judy Parker 1235 River Ridge Ranch Road Killeen, TX	Precinct 4 2014 to 2018	$4,050	-	Secretary	Yes
David Cole 2401 Brown Circle Killeen, TX 76543	At-Large 2014 to 2018	$2,550	-	Director	Yes
Consultants					
Lloyd Gosselink Attorneys at Law 816 Congress Ave Suite 1900 Austin, TX 78701-4071	N/A	$50,441	N/A	Attorney	N/A
Alton D Thiele, P.C. P.O. Box 808 Belton, TX 76513	N/A	$4,400	N/A	Auditor	N/A
Key Personnel					
Dirk Aaron	N/A	$76,000		District Manager	
Shelly Chapman	N/A	$45,840		District Administrative Assistant	

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

COMMUNICATION OF SIGNIFICANT DEFICIENCIES
AND MATERIAL WEAKNESSES AS REQUIRED BY
STATEMENT ON AUDITING STANDARDS NO. 115

SEPTEMBER 30, 2016

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

ALTON D. THIELE, P.C.

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

Clearwater Underground Water Conservation District
700 Kennedy Ct.
PO Box 1989
Belton, TX 76513

In planning and performing our audit of the basic financial statements of Clearwater Underground Water Conservation District (the District) as of and for the year ended September 30, 2016, in accordance with auditing standards generally accepted in the United States of America, we considered the District's internal control over financial reporting (internal control) as a basis for designing our auditing procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility a material misstatement of the District's financial statements will not be prevented, or detected and corrected, in a timely basis.

Our consideration of internal control was for the limited purpose described in the first paragraph 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 or significant deficiencies. However, material weaknesses and other deficiencies may exist that have not been identified.

This communication is intended solely for the information and use of management, the Board of Directors and others within the District, and is not intended to be and should not be used by anyone other than these specified parties.

ALTON D. THIELE, P.C.
Belton, Texas
January 9, 2017

Appendix C

Well Registration Totals

Year	Exempt Wells		Non-Exempt Wells			Monitor Wells		Total
	Grandfathered	New	Grandfathered	Class 1	Class 2	Water	Envr	
2002-2015	4066	846	103	17	42	19	36	**5129**
2016 Jan	2	3	0	0	1	1	0	**7**
Feb	3	2	0	0	0	0	0	**5**
Mar	3	4	1	0	0	0	0	**8**
Apr	3	2	0	0	0	1	0	**6**
May	2	3	0	2	0	0	0	**7**
June	4	3	0	1	0	0	0	**8**
July	3	2	0	2	0	0	0	**7**
Aug	0	6	0	0	0	0	0	**6**
Sept	0	3	0	1	0	0	0	**4**
Oct	2	4	0	0	0	0	0	**6**
Nov	1	3	0	1	0	0	0	**5**
Dec	3	3	0	0	0	0	0	**6**
Total 2016	**26**	**38**	**1**	**7**	**1**	**2**	**0**	**75**
Totals	**4092**	**884**	**104**	**24**	**43**	**21**	**36**	**5204**

Adjustments

Adjustment Type	Exempt Wells		Non-Exempt Wells			Monitor Wells		Total
	Grandfathered	New	Grandfathered	Class 1	Class 2	Water	Envr	
2002-Present	**4092**	**884**	**104**	**24**	**43**	**21**	**36**	**5204**
Never Drilled	N/A	-24	N/A	-3	-4	0	0	-31
Plugged	-135	-31	-13	-1	-1	-2	-15	-198
Totals	**3957**	**829**	**91**	**20**	**38**	**19**	**21**	**4975**

Appendix D

Non-Exempt Wells--Edwards BFZ

File No.	State #	Name	Acre-Feet Hist. Permit	Acre-Feet Oper. Permit	Acre-Feet Total Permit	2016 Monthly Production (gallons) Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	YTD ac-ft	% Permit
		Chick Landscaping	**0.00**	**2.29**	**2.29**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**2,400**	**28,800**	**0.08**	**3.49%**
N2-06-001G		Chick Landscaping Well #1				1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	**14,400**	**0.04**	**1.75%**
N2-06-002G		Chick Landscaping Well #2				1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	**14,400**	**0.04**	**1.75%**
		Jarrell-Schwertner WSC	**301.20**	**153.00**	**454.20**	**7,750,886**	**7,408,537**	**6,608,733**	**6,587,888**	**6,722,317**	**8,865,231**	**8,615,072**	**8,937,793**	**8,594,391**	**8,682,743**	**7,071,713**	**7,475,325**	**93,320,629**	**286.39**	**63.05%**
N2-02-041G	5804808	JSWSC (Prairie Dell 2)				2,791,143	2,599,016	2,394,518	2,351,145	2,404,587	3,839,107	3,055,599	3,173,919	3,007,455	3,067,896	2,601,896	2,843,377	**34,129,658**	**104.74**	**23.06%**
N2-02-042G	5804811	JSWSC (Prairie Dell 5)				3,647,029	3,455,797	3,107,696	3,142,554	3,199,063	3,703,740	4,089,820	4,241,595	4,125,222	4,142,313	3,299,222	3,409,351	**43,563,402**	**133.69**	**29.43%**
N2-03-005P		JSWSC (Prairie Dell 8)				1,312,714	1,353,724	1,106,519	1,094,189	1,118,667	1,322,384	1,469,653	1,522,279	1,461,714	1,472,534	1,170,595	1,222,597	**15,627,569**	**47.96**	**10.56%**
		Not Aggregated	**72.00**	**26.21**	**98.21**	**236,693**	**245,503**	**252,476**	**256,054**	**270,550**	**286,350**	**395,653**	**409,098**	**370,883**	**348,679**	**345,140**	**276,966**	**3,694,045**	**11.34**	
N2-02-016G		Arthur. W. Capps	70.50		**70.50**	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	90,000	**1,080,000**	**3.31**	**4.70%**
N2-07-010G		Bloomer Mfg.		2.07	**2.07**	12,164	11,649	5,800	1,200	9,450	10,860	14,680	6,500	10,670	10,010	7,463	5,170	**105,616**	**0.32**	**15.46%**
N2-11-004P	5804631	Charles Broecker		0.99	**0.99**	0	0	10,000	4,000	0	0	25,000	25,000	25,000	25,000	10,000	0	**124,000**	**0.38**	**38.38%**
N2-16-002G		Charles Dunifer		0.60	**0.60**	0	0	0	0	0	1,160	46,994	12,876	4,530	1,250	70	1,570	**68,450**	**0.21**	**35.00%**
N1-09-004P		Domingo Perez		0.53	**0.53**	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	14,416	**172,992**	**0.53**	**100.00%**
N2-10-007P		Goode Towing		0.05	**0.05**	180	41	110	300	270	160	200	120	150	30	0	10	**1,571**	**0.00**	**0.00%**
N2-11-005P		James & Terry Boston		1.66	**1.66**	1,100	1,300	1,300	1,500	2,200	1,600	669	1,548	1,303	1,452	2,622	1,548	**18,142**	**0.06**	**3.61%**
N2-10-002P		James Construction		0.96	**0.96**	3,008	2,284	3,127	1,803	1,803	1,803	1,806	1,803	1,644	2,076	2,347	2,694	**26,198**	**0.08**	**8.33%**
N1-07-001P		James Schnitker		1.84	**1.84**	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	**600,000**	**1.84**	**100.00%**
N1-13-002P		Janet Stone		0.34	**0.34**	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	9,233	**110,796**	**0.34**	**100.00%**
N1-14-001P		Karen Duerr		0.27	**0.27**	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	7,331	**87,972**	**0.27**	**100.00%**
N1-10-001P		Kenneth Stone		0.57	**0.57**	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	15,445	**185,340**	**0.57**	**100.00%**
N2-08-004P		Lonnie Sherman		1.10	**1.10**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-09-002P		O. W. Lowery		1.84	**1.84**	0	0	0	10,100	21,000	11,228	26,430	114,490	64,530	48,190	58,740	36,520	**391,228**	**1.20**	**65.22%**
N1-07-005P		Patricia Suarez		0.38	**0.38**	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	**123,996**	**0.38**	**100.00%**
N2-07-005G		RLF Salado Quarries (Office)		3.91	**3.91**	1,560	1,150	1,450	2,580	2,440	2,440	1,670	5,590	0	2,200	2,380	1,035	**24,495**	**0.08**	**2.05%**
N1-07-003P		Ronald Gravette		0.38	**0.38**	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	10,333	**123,996**	**0.38**	**100.00%**
N2-15-003P		Roy Zingelmann		0.60	**0.60**	0	0	0	0	100	110	630	0	0	0	100	900	**1,840**	**0.01**	**1.67%**
N2-03-004G	5804627	Salado ISD (MS)	1.50		**1.50**	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	9,720	**116,640**	**0.36**	**24.00%**
N2-09-004G		Salado UMC		1.86	**1.86**	120	10,190	11,800	17,760	10,630	38,100	56,710	24,360	44,530	39,620	42,400	10,070	**306,290**	**0.94**	**50.54%**
N2-15-004P		Scott Law Well #1		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-005P		Scott Law Well #2		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-006P		Scott Law Well #3		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-007P		Scott Law Well #4		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-008P		Scott Law Well #5		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-009P		Scott Law Well #6		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-010P		Scott Law Well #7		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-011P		Scott Law Well #8		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-15-012P		Scott Law Well #9		0.60	**0.60**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-04-017G		Sonic of Salado		0.86	**0.86**	1,750	2,078	2,078	0	5,846	2,078	4,053	0	1,715	2,040	2,207	638	**24,483**	**0.08**	**9.30%**
		Salado WSC	**1,472.30**	**36.99**	**1,509.29**	**22,849,000**	**24,963,000**	**27,943,000**	**28,499,000**	**13,523,000**	**39,741,000**	**49,541,000**	**44,903,000**	**41,596,000**	**40,760,000**	**25,460,000**	**22,061,000**	**381,839,000**	**1,171.82**	**77.64%**
N2-02-010G	5804512	7KX Ranch (#8)				0	0	18,000	6,000	0	5,744,000	15,031,000	7,304,000	4,187,000	3,559,000	144,000	0	**35,993,000**	**110.46**	**7.32%**
N2-02-011G	5804513	7KX Ranch (#9)				5,878,000	5,491,000	5,843,000	5,309,000	5,848,000	2,490,000	0	0	0	0	3,000	5,281,000	**36,143,000**	**110.92**	**7.35%**
N2-02-003G	5804602	Salado WSC (#1)				13,000	0	0	0	0	3,000	270,000	149,000	38,000	3,000	0	0	**476,000**	**1.46**	**0.10%**
N2-02-004G	5804604	Salado WSC (#2)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-005G	5804508	Salado WSC (#3)				57,000	0	162,000	563,000	73,000	1,326,000	3,656,000	3,523,000	5,191,000	5,082,000	2,622,000	0	**22,255,000**	**68.30**	**4.53%**
N2-02-006G	5804621	Salado WSC (#4)				6,841,000	3,662,000	4,406,000	4,571,000	4,343,000	6,904,000	9,680,000	8,623,000	8,867,000	8,897,000	4,777,000	3,228,000	**74,799,000**	**229.55**	**15.21%**
N2-02-007G	5804509	Salado WSC (#5)				2,847,000	1,205,000	1,640,000	2,501,000	1,773,000	5,748,000	0	5,343,000	3,924,000	3,624,000	299,000	72,000	**28,976,000**	**88.92**	**5.89%**
N2-02-008G	5804510	Salado WSC (#6)				7,162,000	14,605,000	15,863,000	15,464,000	1,486,000	17,411,000	19,081,000	19,038,000	18,866,000	19,469,000	17,615,000	13,480,000	**179,540,000**	**550.99**	**36.51%**
N2-02-009G	5804626	Salado WSC (#7)				51,000	0	11,000	85,000	0	115,000	1,823,000	923,000	523,000	126,000	0	0	**3,657,000**	**11.22**	**0.74%**
		Schwertner Farms	**328.90**	**74.05**	**402.95**	**4,671,453**	**4,611,938**	**4,477,235**	**4,851,342**	**5,882,081**	**10,247,827**	**11,520,786**	**11,368,480**	**9,989,697**	**10,868,550**	**10,424,591**	**8,541,070**	**97,455,050**	**299.08**	**74.22%**
N2-04-005G		Schwertner Farms Blackwell				226,644	205,309	255,323	329,970	348,619	329,460	328,746	329,902	337,688	369,954	369,954	333,948	**3,765,517**	**11.56**	**2.87%**
N2-04-001G		Schwertner Farms CCL #1				810,671	831,134	718,471	814,908	1,093,933	2,595,819	3,005,671	2,946,476	2,479,311	2,710,756	2,579,747	2,017,997	**22,604,894**	**69.37**	**17.22%**
N2-04-002G		Schwertner Farms CCL #2				810,671	831,134	718,471	814,908	1,093,933	2,595,819	3,005,671	2,946,476	2,479,311	2,710,756	2,579,747	2,017,997	**22,604,894**	**69.37**	**17.22%**
N2-04-003G		Schwertner Farms CCL #3				810,671	831,134	718,471	814,908	1,093,933	2,595,819	3,005,671	2,946,476	2,479,311	2,710,756	2,579,747	2,017,997	**22,604,894**	**69.37**	**17.22%**
N2-04-004G		Schwertner Farms Eastland W.				220,150	298,435	317,458	313,140	291,329	268,770	283,458	283,084	282,540	302,532	314,160	302,243	**3,477,299**	**10.67**	**2.65%**
N2-04-006G		Schwertner Farms ES #1				113,437	102,421	110,411	102,880	88,957	129,850	127,768	113,454	103,968	115,035	107,623	111,873	**1,327,677**	**4.07**	**1.01%**
N2-04-007G		Schwertner Farms ES #2				687,038	624,172	701,029	727,107	755,718	710,498	736,865	762,144	787,984	795,464	793,645	685,542	**8,767,206**	**26.91**	**6.68%**
N2-04-008G		Schwertner Farms ES #3				592,110	508,878	532,338	545,887	686,154	623,594	621,860	622,421	610,980	655,282	629,850	610,793	**7,240,147**	**22.22**	**5.51%**
N2-10-006P		Schwertner Farms Little D.				400,061	379,321	405,263	387,634	429,505	398,198	405,076	418,047	428,604	498,015	470,118	442,680	**5,062,522**	**15.54**	**3.86%**
		Stagecoach Inn	**35.30**	**7.02**	**42.32**	**395,300**	**107,600**	**73,400**	**67,300**	**72,100**	**108,900**	**146,300**	**149,200**	**189,800**	**301,500**	**312,500**	**379,200**	**2,303,100**	**7.07**	**16.71%**
N2-02-002G	5804623	Stagecoach (deep)				395,300	107,600	73,400	67,300	72,100	108,900	146,300	149,200	189,800	301,500	312,500	379,200	**2,303,100**	**7.07**	**16.71%**
N2-02-037G		Stagecoach (spring)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
Totals:			**2,209.70**	**299.56**	**2,509.26**	**35,905,732**	**37,338,978**	**39,357,244**	**40,263,984**	**26,472,448**	**59,251,708**	**70,221,211**	**65,769,971**	**60,743,171**	**60,963,872**	**43,616,344**	**38,735,961**	**578,640,624**	**1,775.78**	**70.77%**

Non-Exempt Wells--Trinity

File No.	State #	Name	Acre-Feet Hist. Permit	Acre-Feet Oper. Permit	Acre-Feet Total Permit	2016 Monthly Production (gallons) Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	YTD ac-ft	% Permit
		Armstrong WSC	**154.90**	**333.00**	**487.90**	**1,791,210**	**1,388,310**	**1,239,770**	**1,441,080**	**1,109,030**	**1,535,800**	**2,407,280**	**3,685,180**	**2,071,560**	**1,983,970**	**2,051,720**	**1,522,300**	**22,227,210**	**68.21**	**13.98%**
N2-02-024G	5805202	Armstrong WSC #1				210	310	18,770	80	30	800	21,280	21,180	10,560	15,970	9,720	3,300	**102,210**	**0.31**	**0.06%**
N2-10-001P		Armstrong WSC #2				1,791,000	1,388,000	1,221,000	1,441,000	1,109,000	1,535,000	2,386,000	3,664,000	2,061,000	1,968,000	2,042,000	1,519,000	**22,125,000**	**67.90**	**13.92%**
		Bell Milam Falls WSC	**262.20**	**0.00**	**262.20**	**2,901,300**	**5,221,600**	**5,572,100**	**3,945,300**	**5,228,100**	**4,569,500**	**7,932,600**	**9,399,100**	**10,138,200**	**6,434,300**	**3,559,300**	**6,714,666**	**71,616,066**	**219.79**	**83.83%**
N2-02-046G	5814402	Bell-Milam-Falls WSC (Bartlett)				2,901,000	1,804,000	1,951,000	1,027,000	2,358,000	603,000	4,809,000	4,625,000	3,831,000	3,316,000	1,345,000	3,124,333	**31,694,333**	**97.27**	**37.10%**
N2-02-038G	5806601	Bell-Milam-Falls WSC (Rogers)				300	3,417,600	3,621,100	2,918,300	2,870,100	3,966,500	3,123,600	4,774,100	6,307,200	3,118,300	2,214,300	3,590,333	**39,921,733**	**122.52**	**46.73%**
		East Bell WSC	**69.70**	**114.85**	**184.55**	**542,000**	**404,000**	**185,000**	**397,000**	**406,000**	**1,311,000**	**2,739,000**	**2,494,000**	**2,689,000**	**2,700,000**	**1,819,000**	**1,893,000**	**17,579,000**	**53.94**	**29.23%**
N2-02-034G	4063501	East Bell WSC #1				91,000	123,000	102,000	158,000	145,000	903,000	2,260,000	1,711,000	1,982,000	2,299,000	1,506,000	1,521,000	**12,801,000**	**39.28**	**21.28%**
N2-04-010P	5806301	East Bell WSC #2				451,000	281,000	83,000	239,000	261,000	408,000	479,000	783,000	707,000	401,000	313,000	372,000	**4,778,000**	**14.66**	**7.94%**
		Leon River Turkey Farms	**60.90**	**0.00**	**60.90**	**52,500**	**25,000**	**27,200**	**16,000**	**30,300**	**20,600**	**27,300**	**37,600**	**23,000**	**15,400**	**3,500**	**19,500**	**297,900**	**0.91**	**1.49%**
N2-02-045G	5805403	Leon River Turkey				15,000	20,000	24,000	13,000	27,000	17,000	23,000	33,000	17,000	12,000	1,100	17,000	**219,100**	**0.67**	**1.10%**
N2-02-043G	4053301	Leon River Turkey (East)				36,000	4,000	2,000	1,500	1,700	2,200	2,600	2,700	4,500	2,200	2,400	1,500	**63,300**	**0.19**	**0.31%**
N2-02-044G	4053302	Leon River Turkey (West)				1,500	1,000	1,200	1,500	1,600	1,400	1,700	1,900	1,500	1,200	0	1,000	**15,500**	**0.05**	**0.08%**
		Lhoist	**40.00**	**0.00**	**40.00**	**378,000**	**378,000**	**414,000**	**378,000**	**378,000**	**396,000**	**378,000**	**486,000**	**396,000**	**738,000**	**756,000**	**378,000**	**5,454,000**	**16.74**	**41.85%**
N2-03-002G	4060101	LHoist #1				378,000	378,000	414,000	378,000	378,000	396,000	378,000	414,000	396,000	378,000	396,000	378,000	**4,662,000**	**14.31**	**35.78%**
N2-03-003G		LHoist #2				0	0	0	0	0	0	0	72,000	0	360,000	360,000	0	**792,000**	**2.43**	**6.08%**
		Moffat WSC	**47.70**	**157.80**	**205.50**	**7,000**	**7,000**	**11,000**	**116,000**	**1,240,000**	**37,000**	**3,258,000**	**1,729,000**	**1,399,000**	**1,695,000**	**1,086,000**	**83,000**	**10,668,000**	**32.73**	**15.93%**
N2-02-022G	4053406	Moffat WSC #1				0	0	4,000	109,000	1,233,000	0	3,258,000	1,729,000	1,399,000	1,695,000	1,086,000	82,000	**10,595,000**	**32.51**	**15.82%**
N2-08-006P	4053507	Moffat WSC #2				7,000	7,000	7,000	7,000	7,000	37,000	0	0	0	0	0	1,000	**73,000**	**0.22**	**0.11%**
		Not Aggregated	**791.90**	**1,349.67**	**2,141.57**	**6,483,101**	**7,615,369**	**7,481,815**	**6,591,191**	**6,256,486**	**10,756,496**	**20,384,899**	**10,152,480**	**9,611,253**	**9,318,649**	**10,642,073**	**6,901,377**	**112,195,189**	**344.31**	
N1-07-006P		Advanced Electrical Systems		0.88	**0.88**	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	24,000	**288,000**	**0.88**	**100.00%**
N1-11-002P		Andrew Robertson		0.59	**0.59**	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	16,021	**192,252**	**0.59**	**100.00%**
N2-07-008G		Apache Stone		17.16	**17.16**	0	404,475	404,475	834,720	623,415	623,415	483,990	488,900	415,880	388,390	438,230	516,970	**5,622,860**	**17.26**	**100.58%**
N2-02-001G	5806102	Bell Co. WCID #2	184.20	21.60	**205.80**	2,187,000	1,607,000	2,179,000	2,208,000	2,361,000	3,329,000	4,703,000	3,682,000	3,648,000	4,349,000	3,683,000	3,434,000	**37,370,000**	**114.68**	**55.72%**
N2-02-040G	4062801	Bell Co. WCID #5	20.70	8.00	**28.70**	3,600	800	1,500	349,100	231,800	592,700	723,900	349,400	381,300	239,400	47,100	34,200	**2,954,800**	**9.07**	**31.60%**
N2-03-001G	4062401	Cen. TX Vet. Hospital		60.00	**60.00**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-04-011P		Central Texas Strike Zone		1.30	**1.30**	0	752	1,184	0	0	7,710	3,368	0	3,130	0	2,048	0	**18,192**	**0.06**	**4.62%**
N2-08-003G		City of Harker Heights		1.16	**1.16**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-013G	5805901	City of Holland	158.40		**158.40**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-012G	5807701	City of Rogers	139.40		**139.40**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-036G	4054503	City of Troy #1	119.90	100.60	**220.50**	33,600	93,400	17,679	31,486	33,298	36,830	18,132	38,072	39,167	32,532	36,128	33,166	**443,490**	**1.36**	**0.62%**
N2-14-004P		Doc Curb		726.00	**726.00**	0	1,349,000	2,187,000	556,000	42,910	250,000	3,855,000	0	0	0	3,223,000	0	**11,462,910**	**35.18**	**4.85%**
N1-07-002P		Ingo Smith		1.57	**1.57**	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	42,766	**513,192**	**1.57**	**100.00%**
N2-13-002P	5806201	Jack Hilliard Dozer and Materials		73.20	**73.20**	40	0	0	0	0	0	0	0	0	0	0	0	**40**	**0.00**	**0.00%**
N2-10-003P		James Construction		17.78	**17.78**	164,333	269,000	735,142	735,142	735,142	735,142	735,142	735,142	735,142	349,000	0	0	**5,928,327**	**18.19**	**102.31%**
N1-05-001P		John Kurzyniec		0.67	**0.67**	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	18,250	**219,000**	**0.67**	**100.00%**
N2-07-003G		Killeen Crushed Stone		36.00	**36.00**	660,750	660,750	0	0	0	0	2,031,700	649,700	385,767	385,767	385,767	599,800	**5,760,001**	**17.68**	**49.11%**
N2-09-001P		Kimberly Langston		12.32	**12.32**	31,040	82,320	37,870	52,020	1,210	498,280	401,050	121,130	352,480	403,160	20,340	790	**2,001,690**	**6.14**	**49.84%**
N2-08-001P		Kirby Stone		16.03	**16.03**	190,000	302,000	125,000	157,000	175,000	140,000	382,000	332,000	306,000	267,000	135,900	175,000	**2,686,900**	**8.25**	**51.47%**
N1-09-003P		Laurie Gehring		0.34	**0.34**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-039G	4054801	Little Elm Valley WSC	91.20		**91.20**	1,151,400	1,254,100	1,165,100	1,305,200	1,432,000	2,436,400	3,334,800	2,684,200	2,194,900	1,892,800	1,432,700	1,538,100	**21,821,700**	**66.97**	**73.43%**
N2-07-006G		Maxdale Cowboy Church		0.16	**0.16**	1,870	1,520	1,520	1,580	1,530	1,670	1,260	0	1,535	1,455	1,380	1,520	**16,840**	**0.05**	**31.25%**
N1-16-004P		Michael Maples		0.39	**0.39**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N1-16-005P		Michael Maples		0.39	**0.39**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-014G		Miller Springs Materials		50.00	**50.00**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-017G	4055701	Oenaville / Belfalls WSC	16.20	20.79	**36.99**	65,104	72,003	73,866	91,755	120,709	266,448	620,929	419,778	330,193	389,014	83,343	71,565	**2,604,707**	**7.99**	**21.60%**
N2-07-009G		Parrie Haynes Ranch		13.80	**13.80**	31,390	83,700	18,200	26,000	0	21,000	75,380	32,460	25,000	15,830	5,170	30,003	**364,133**	**1.12**	**8.12%**
N2-07-007G		Patriot Retreat		0.01	**0.01**	0	0	30	40	0	150	220	100	0	0	0	0	**540**	**0.00**	**0.00%**
N2-09-005G		R S Materials Group		16.67	**16.67**	294,990	299,820	331,590	0	289,200	332,800	370,920	250,420	261,320	363,550	325,830	227,180	**3,347,620**	**10.27**	**61.61%**
N1-16-001P		Richard Ross		0.70	**0.70**	0	0	0	0	0	0	0	0	0	0	19,008	19,008	**38,016**	**0.12**	**17.14%**
N1-16-006P		Ronald Ham		0.53	**0.53**	0	0	0	0	0	0	0	0	0	0	14,391	14,391	**28,782**	**0.09**	**16.98%**
N2-05-004P		Salado B.P. / Ronnie Tynes		11.05	**11.05**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-08-002P		Salado ISD (HS)		21.41	**21.41**	0	2	2	3	0	2	64	3	6	818	2	7	**909**	**0.00**	**0.00%**
N2-07-011G	5804624	Stagecoach (Spa)		0.05	**0.05**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-035G		Stagecoach/Mill Creek Inn	61.90	60.00	**121.90**	1,440,000	900,000	0	0	0	1,260,000	2,160,000	0	0	0	540,000	0	**6,300,000**	**19.33**	**15.86%**
N2-07-012G		Temple Park Estates		9.50	**9.50**	69,620	70,280	47,750	83,890	48,160	61,900	296,820	193,140	362,350	82,190	90,540	50,930	**1,457,570**	**4.47**	**47.05%**
N2-05-003P	40589	Texas Veterans Land Board		36.80	**36.80**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-11-003G		UMHB		7.50	**7.50**	5,907	10,790	2,950	4,898	8,055	12,392	12,067	7,378	18,176	12,636	6,839	4,090	**106,178**	**0.33**	**4.40%**
N2-06-008P		VillasDelSol / John Henderson		3.13	**3.13**	8,300	9,500	7,800	10,200	8,900	6,500	31,000	24,500	6,750	1,950	7,200	6,500	**129,100**	**0.40**	**12.78%**
N1-08-001P		Yong Conway		1.59	**1.59**	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	43,120	**517,440**	**1.59**	**100.00%**
		Pendleton WSC	**75.30**	**47.07**	**122.37**	**3,220,600**	**2,694,700**	**2,986,200**	**2,491,600**	**2,168,600**	**2,581,400**	**3,800,900**	**3,396,900**	**3,587,400**	**3,505,000**	**2,545,300**	**2,973,500**	**35,952,100**	**110.33**	**90.16%**
N2-02-047G	4054401	Pendleton WSC (#1)				1,597,800	1,271,400	1,407,600	1,482,800	2,168,600	2,581,400	3,800,900	3,396,900	2,078,800	1,677,000	1,205,200	1,406,000	**24,074,400**	**73.88**	**60.37%**
N2-02-048G	4054502	Pendleton WSC (#2)				1,622,800	1,423,300	1,578,600	1,008,800	0	0	0	0	1,508,600	1,828,000	1,340,100	1,567,500	**11,877,700**	**36.45**	**29.79%**
Totals:			**1,502.60**	**2,002.39**	**3,504.99**	**15,375,711**	**17,733,979**	**17,917,085**	**15,376,171**	**16,816,516**	**21,207,796**	**40,927,979**	**31,380,260**	**29,915,413**	**26,390,319**	**22,462,893**	**20,485,343**	**275,989,465**	**846.96**	**24.16%**

Non-Exempt Wells--Other

			Acre-Feet			2016 Monthly Production (gallons)														
File No.	**State #**	**Name**	**Hist. Permit**	**Oper. Permit**	**Total Permit**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**YTD**	**YTD ac-ft**	**% Permit**
		Bradley Ware	**0.00**	**160.00**	**160.00**	**1,075,310**	**2,118,034**	**1,498,915**	**521,361**	**0**	**7,201,317**	**5,376,548**	**3,388,854**	**5,181,032**	**5,865,317**	**3,682,120**	**3,747,291**	**39,656,099**	**121.70**	**76.06%**
N2-11-001G		Bradley B. Ware				684,288	1,433,746	912,383	358,436	0	5,832,741	3,454,025	2,215,789	3,649,531	4,170,892	2,671,981	3,030,418	**28,414,230**	**87.20**	**54.50%**
N2-11-002G		Bradley B. Ware				391,022	684,288	586,532	162,925	0	1,368,576	1,922,523	1,173,065	1,531,501	1,694,425	1,010,139	716,873	**11,241,869**	**34.50**	**21.56%**
		Not Aggregated	**0.00**	**112.81**	**112.81**	**49,357**	**55,898**	**56,826**	**55,577**	**53,488**	**53,860**	**59,308**	**55,869**	**54,015**	**52,490**	**54,872**	**55,582**	**657,142**	**2.01**	
N2-07-014P		Barking Oaks		0.62	**0.62**	0	6,241	6,589	6,237	6,578	6,180	6,471	6,292	5,291	6,266	6,325	6,835	**69,305**	**0.21**	**33.87%**
N2-08-005G		Golden / Ling		1.07	**1.07**	1,900	2,250	2,330	2,410	3,380	1,750	6,930	3,970	2,430	2,880	1,440	1,600	**33,270**	**0.10**	**9.35%**
N2-14-001G		Mikeska		100.00	**100.00**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-06-007G		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**	**8.53%**
N1-11-001P		Roy Rodriquez		0.55	**0.55**	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	**180,000**	**0.55**	**100.00%**
N2-16-001P		Sparta Plaza Ltd.		0.12	**0.12**	0	0	0	1,023	1,023	1,023	1,000	1,100	1,087	1,137	1,000	940	**9,333**	**0.03**	**25.00%**
N1-04-001P		Stephen Spinn		0.56	**0.56**	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	15,207	**182,484**	**0.56**	**100.00%**
N2-07-013G		Temple TAG		2.47	**2.47**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-08-007G		Trio Investments		0.18	**0.18**	200	200	200	200	300	200	200	100	500	200	1,200	200	**3,700**	**0.01**	**5.56%**
N1-16-007P		Wells Fargo Bank		0.79	**0.79**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
		Strasburger Farms	**271.80**	**33.84**	**305.64**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0.00**	
N2-02-030G		Strasburger Farms (#10)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-031G		Strasburger Farms (#11)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-032G		Strasburger Farms (#15)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-033G		Strasburger Farms (#16)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-026G		Strasburger Farms (#2)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-027G		Strasburger Farms (#4)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
N2-02-029G		Strasburger Farms (#6)				0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0.00**	**0.00%**
Totals:			**271.80**	**306.65**	**578.45**	**1,124,667**	**2,173,932**	**1,555,741**	**576,938**	**53,488**	**7,255,177**	**5,435,856**	**3,444,723**	**5,235,047**	**5,917,807**	**3,736,992**	**3,802,873**	**40,313,241**	**123.71**	**21.39%**

Appendix E

Clearwater UWCD Summary of Exempt Well Use Through December 2016

Aquifer	Total Number of Registered Exempt Wells	Registered Number of Domestic Wells	Estimated Domestic Use Gallons/Day	Estimated Domestic Use Ac-ft/Year	Registered Number of Stock Wells	Estimated Stock Use Gallons/Day	Estimated Stock Use Ac-ft/Year	Total Estimated Use Gallons/Day	Total Estimated Exempt Well Use Ac-ft/Year
Glen Rose (Upper Trinity)	*543*	*438*	*224,698*	*252*	*105*	*67,200*	*75*	*291,898*	*327*
Hensell (Middle Trinity)	*670*	*621*	*318,579*	*357*	*49*	*31,360*	*35*	*349,939*	*392*
Hosston (Lower Trinity)	*119*	*107*	*54,892*	*61*	*12*	*7,680*	*9*	*62,572*	*70*
Trinity (Total)	1,332	1,166	598,170	670	166	106,240	119	704,410	789
Edwards BFZ	760	632	324,222	363	128	81,920	92	406,142	455
Edwards Equivalent	396	302	154,929	174	94	60,160	67	215,089	241
Buda	39	22	11,286	13	17	10,880	12	22,166	25
Lake Waco	9	3	1,539	2	6	3,840	4	5,379	6
Austin Chalk	208	127	65,152	73	81	51,840	58	116,992	131
Ozan	170	121	62,074	70	49	31,360	35	93,434	105
Pecan Gap	67	44	22,572	25	23	14,720	16	37,292	42
Kemp	15	11	5,643	6	4	2,560	3	8,203	9
Alluvium	588	378	193,918	217	210	134,400	151	328,318	368
Other	1,492	1,008	517,114	579	484	309,760	347	826,874	926
CUWCD Total	**3,584**	**2,806**	**1,439,506**	**1,612**	**778**	**497,920**	**558**	**1,937,426**	**2,170**

Domestic use estimate assumes 176.94 gallons/person per day (TWDB estimate of domestic use outside of a municipal water system) and 2.90 persons/houshold (U.S. Census - Bell County.average 2008-12)
Exempt well use estmate factors out all plugged, capped, monitor and inactive wells in the database.
Source of stock water estimates is Texas Agrilife Extension @ 18 gallons water per day per cow.
Livestock water use estimates are based on the 2011 TWDB Water Use Survey Historical Summary Estimates by County as of 12/26/13.
Trinity Aquifer wells registered with unknown depth are assigned to the Middle Trinity per Board decision.
The total registered exempt wells include all domestic wells, livestock wells, inactive wells and monitor wells with exempt status.
The other designation is the total of minor aquifer and alluvium source designation of the exempt wells.

Clearwater
Underground Water Conservation District
Every drop counts!

Appendix F

Edwards (BFZ) Aquifer Status Report – January 2017

DFC analysis over time (2000-Present)	*HEUP and OP Permit Analysis*	*2016 YTD Prod. Jan-Dec*	*Pending Applications*	*Exempt Well Reservations*
Modeled Available Groundwater	*Relative to the Modeled Available Groundwater*	*1775.78 ac-ft 70.77 %*		

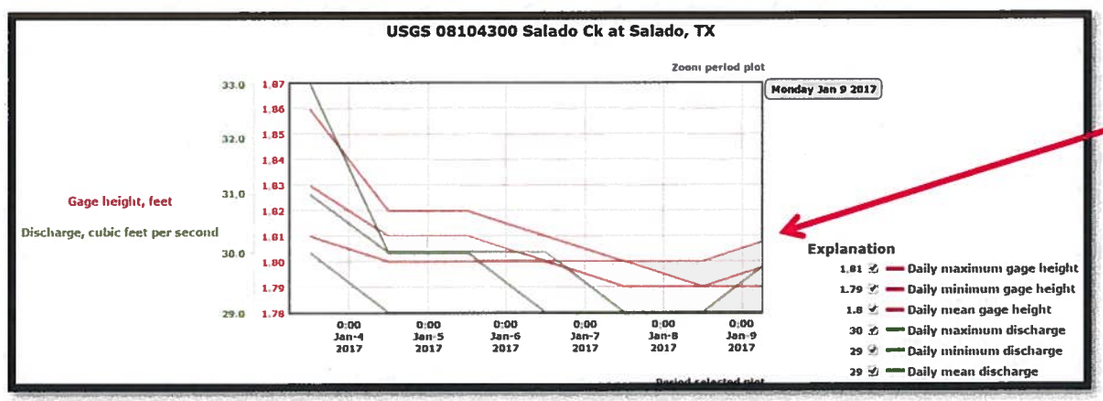
	DFC Adopted** * ***Minimum Spring Flow	**Status of DFC** ** Current / Low	**MAG** Ac/ft***	HEUP ac-ft	OP ac-ft	**Total Permitted ac-ft**	2015 Actual Production	**Available for Permitting ac-ft**	**** **Pending Applications ac-ft**	Exempt Well Reservation by layer	Exempt Well Use Estimation	**Available Exempt Use**
Edwards (BFZ) Aquifer	**100 ac-ft or 1.68 cfs** per month	***1761 ac-ft*** 01/10/2017 vs ***220 ac-ft*** *08/20/2014*	6,469	2,209.70	299.56	**2,509.26**	*1,747.93 ac-ft 69.69%*	**3,134.74**	0	825	455	370

**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.*

***** no pending permit applications*



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 Jan 6th – Jan 9th is 29.6 CFS = 1761.32 ac-ft/month

5 - day average for Dec 7th – Dec 11th is 54.0 CFS = 3213.23 ac-ft/month

Trinity Aquifer Status Report –January 2017

DFC analysis over time (2000-Present) *Modeled Available Groundwater*			HEUP and OP Permit Analysis *Relative to the Modeled Available Groundwater*				2016 YTD Prod. Jan-December* 846.98 ac-ft 24.11 %	Pending Applications		Exempt Well Reservations		
Trinity Aquifer (by layer)	***DFC Adopted*** ***Average drawdown**** (by layer)	**Current Trend DFC** ** Average Drawdown ft/year	**MAG** Ac/ft***	**HEUP Ac/ft**	**OP Ac/ft**	**Total Permitted Ac/ft** (by layer)	2015 Actual Production By Aquifer Layer	**Available for Permitting Ac/ft** (by layer)	Pending Applications Acre ft (by layer)	**Exempt Well Reservation Ac/ft by layer**	**2015 Exempt Well Use Estimation**	**Available Exempt Use**
Paluxy	NA	**NA**	96	0	0	**0**	0	**0**	0			0
Glen Rose (upper)	***-3.1 ft/yr*** -155 ft/50 yrs.	***-1.26 ft*** *2000-16*	880	61.90	120.15	**182.05**	84.59 (24.40)*	**4.95**	0	**693**	**327**	366
Hensell (Middle)	***-5.72 ft/yr*** -286 ft/50 yrs.	***-0.75 ft*** *2000-16*	1099	259.30	202.78	**462.08**	55.91 (99.91)*	**88.92**	0	**548**	**392**	156
Hosston (Lower)	***-6.38 ft/yr*** -319 ft/50 yrs.	***-4.82 ft*** *2000-16*	4993	1181.40	1679.46	**2860.86**	681.20 (722.97)*	**1954.14**	**** 1945.00	**178**	**70**	108
Total			**7068**	1502.60	2002.39	**3504.99**	681.20 (846.98)* (23.81%) (24.24%)	**2048.01**	**1945.00**	**1419**	**789**	630

*Desired Future Conditions (DFC) is the description of how the aquifer should look in the future (50 years).

**Status of the DFC is the estimated drawdown of each Layer of the Trinity Aquifer, by Clearwater UWCD Staff, based on the years 2000 -2016 and expressed as feet per year per layer.

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

****Pending applications in the Hosston Layer (Lower), and Hensell of the Trinity Aquifer (Middle)

Central Texas WSC Drilling Permit Well #2 (1695 ac/ft), City of Troy Drilling Permit Well #2 (250 ac/ft)

Appendix G

Join the District for the 16th Annual

Bell County Water Symposium

November 16, 2016 8:00 A.M. --- 4:00P.M.

Texas A&M University - Central Texas

This event is free but requires RSVP by November 11th

Key Topics and Speakers

"Understanding Groundwater Management Issues and Challenges in Texas?"
Ty Embrey, Attorney, Lloyd Gosselink, Rochelle and Townsend
Sarah Rountree Schlessinger, Executive Director
Texas Alliance of Groundwater Conservation Districts

"State of the District"
Leland Gersbach, President, Clearwater UWCD
Dirk Aaron, General Manager, Clearwater UWCD

"Finding Balance Between Regulation, Management, and Property Rights in the Central Carrizo-Wilcox"
Gary Westbrook, General Manager, Post Oak Savanah GCD

"Understanding the Geology of the Aquifers for ASR"
James Beach, P.G., Senior Vice President, LBG-Guyton Associates

"Aquifer Storage and Recovery—Reality for the Future of Central Texas"
Matt Webb, Hydrologist, Texas Water Development Board

"Case Study of an ASR Project"
Dr. Hughbert Collier, Ph.D., P.G., Senior Vice President, Collier Consulting

"Looking Closely at ASR for Central Texas"
Dr. June Wolfe, Associate Research Scientist,
Texas A&M AgriLife Research's Blackland Research and Extension Center

"An Evolving Understanding of the Hosston Layer of the Trinity Aquifer"
Mike Keester, Senior Hydrogeologist, LBG-Guyton Associates

"What We Now Know About the Northern Segment of the Balcones Fault Zone Edwards Aquifer"
Ms. Stephanie Wong, Graduate Student, Hydrogeology, Baylor University
Dr. Joe Yelderman, Professor (Hydrogeology), Baylor University

"Status of the Salado Salamander "
Pete Diaz, Texas Fish & Wildlife Conservation Office

(continued from page 1)

to identify the areal extent and thicknesses of brackish water-bearing geologic formations and to characterize the availability of groundwater in them.

Stakeholder meetings will be scheduled in the near future to disseminate the findings of the study concerning the availability of brackish groundwater from the Trinity aquifer and to field questions and concerns from stakeholders. The study completion deadline is August 31, 2017. Clearwater Underground Water Conservation District encourages all interested parties to stay informed on this effort by TWDB.

For more information on the Trinity BRACS study, please visit:
http://www.twdb.texas.govinnovativewater/bracs/projects/HB30_Trinity/index.asp
For more information on HB 30 please visit:
http://www.twdb.texas.gov/innovativewater/bracs/HB30.asp

Groundwater Cheat Sheet

- **GCD:** Groundwater Conservation Districts are political subdivisions of Texas created to protect and balance the use of groundwater. GCDs are granted specific legal authority in Chapter 36 of the Water Code to manage groundwater production through various methods, including well spacing and production limitations.
- **GMA:** Groundwater Management Areas are designated by the TWDB and generally match aquifer boundaries. GCDs within the GMA meet to develop DFCs for the aquifers in their jurisdiction.
- **DFC:** a Desired Future Condition is a quantifiable condition of an aquifer at a specified future time. The metric may be based on aquifer levels, spring flows, or volumes of water in the aquifer (example: average drawdown not to exceed 25 feet over 50 years). In setting DFCs, GCDs must balance the highest practicable groundwater production with conservation and protection of the aquifer. GCDs must then manage groundwater production on a long-term basis to achieve the DFC.
- **TWDB:** The Texas Water Development Board is the state agency responsible for overseeing state and regional water planning, providing financial assistance for local government water projects, and studies the state's surface water and groundwater resources.
- **MAG:** the Modeled Available Groundwater is calculated by the TWDB and is the amount of water that may be produced on an average annual basis to achieve a DFC. The MAG is a tool used by GCDs to ensure consistency with the DFC and by regional water planning groups for water planning.
- **Joint Planning:** the process by which GCDs in a GMA work together to develop DFCs, review groundwater management plans, and assess the accomplishments of the GMA.
- **GAM:** a Groundwater Availability Model is a regional groundwater flow model approved by TWDB.
- **TAGD:** the Texas Alliance of Groundwater Districts is a 501(c)(3) educational association made up of more than 80 GCDs and 30 associate members. TAGD assists GCDs, provides groundwater outreach and education, and facilitates communication among groundwater stakeholders.

texasgroundwater.org

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

(postage)

Clearwater Source

Clearwater Underground Water Conservation District

2016 Annual Newsletter | October 2016 | Volume 12, Issue 1

A Message From The President

Another year has passed and as the norm in is Texas, it has been another unusual year for our rainfall that directly affects our underground water. The District continues to monitor the Trinity aquifer for drawdown and scientifically ascertain the issues and causes of excess drawdown in certain areas of the county. The Trinity aquifer does not respond to the excess rainfall to the same degree as the Edwards aquifer which responds quickly to both excess and lack of rainfall. Your elected board continues to manage our underground water and continues to obtain the science to further our knowledge of this valuable resource that we all depend on for life.

The District has been very active this year in the five year water planning for Texas as required by law. We continue to expand our water education to area schools to educate our school children about our most valuable resource, water conservation and the value of water to their lives.

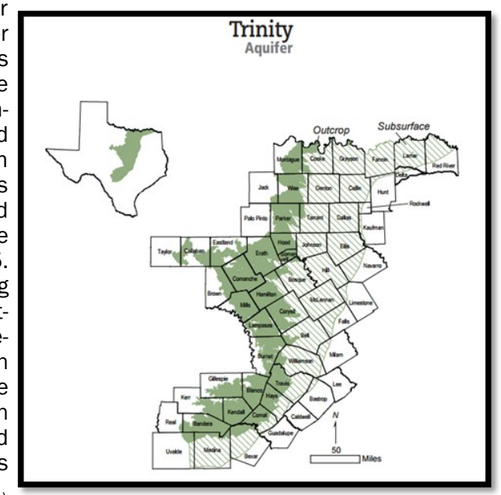
The annual water symposium is being held on Wednesday, November 16th. I would encourage you to attend this free symposium to be updated on the current status of underground water both here and across Texas and the challenges and opportunities that we are facing. I would also encourage you to go to our website which, in my opinion, is one of the best in Texas in that it combines BellCAD, mapping, lake levels, rainfall, drought status and water issues.

Hopefully, I'll see you at our water symposium and if you have any underground water issues, please call our District office for assistance.

Leland Gersbach, President
Clearwater UWCD

Trinity Aquifer Brackish Groundwater Study

The Texas Water Development Board (TWDB) has initiated a study of the Trinity aquifer. The TWDB has hired the Southwest Research Institute to conduct a study of the brackish groundwater resources of the Trinity aquifer which encompasses 89 Texas counties. This study is taking place in order to fulfill part of the commitment of TWDB to identify and designate potential brackish groundwater production zones throughout the state as directed in House Bill 30 passed by the 84th Texas Legislature in 2015.



The TWDB staff is working to fulfill House Bill 30 commitments utilizing the Brackish Resources Aquifer Characterization System (BRACS) program. The BRACS program uses information from existing water wells, oil and gas wells, and geological reports

(continued on page 5)

"What We Now Know About the Northern Segment of the Balcones Fault Zone Edwards Aquifer"

Students and faculty from Baylor University have been actively conducting research in cooperation with the Clearwater Underground Water Conservation District and other stakeholders in Bell County for several years. Their efforts to learn more about the hydrologic processes in the Northern Segment of the Edwards Balcones Fault Zone aquifer revealed some important discoveries that will aid water management and help direct future research needs. Stephanie Wong and Dr. Joe Yelderman will present, "What We Now Know About the Northern Segment of the Balcones Fault Zone Edwards Aquifer" at the Bell County Water Symposium November 16th. Some of their discoveries are listed below with interpretations regarding their potential significance.

1. Synoptic water levels measured in 2013 included more wells than ever measured before (39) and revealed little change from 2010 synoptic levels. Overall aquifer levels, individual well levels, and general flow patterns remained similar to those previously measured. The synoptic water level data indicate that the aquifer weathered the epic drought of 2011 without large water level changes.
2. Data collected with multi-parameter data loggers in a cave/well and several springs indicated rapid groundwater responses to large rainfall events. The data also show slight water quality changes *(Figure 1, below).* Data from the multi-parameter data logger further refined the fracture system at the springs by indicating a slightly slower response to recharge at Doc Benedict Spring than adjacent Anderson Spring. The responses to recharge captured by the data loggers also provide important timing information to aid in the development of future monitoring strategies.

(continued on page 3)

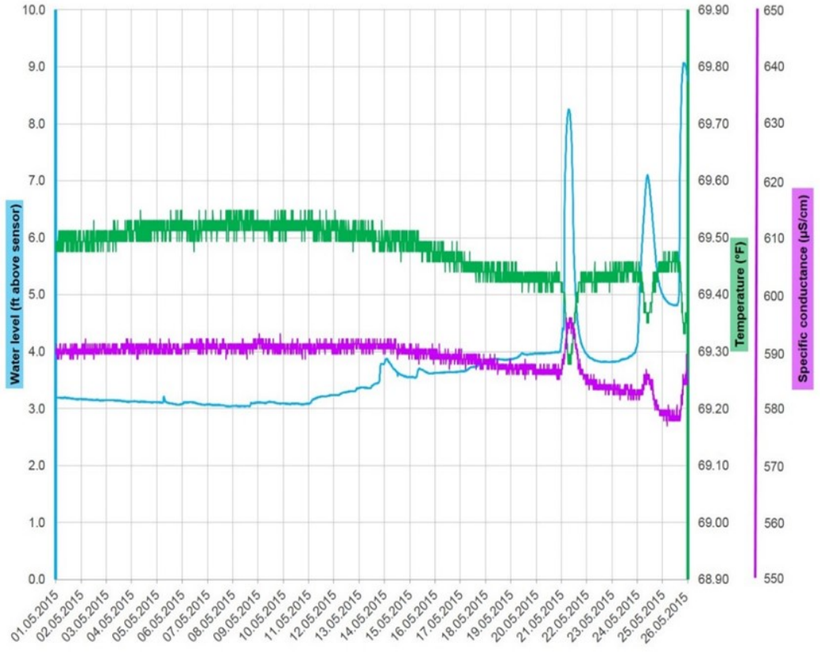


Figure 1. Data collected from the cave well showing a recharge response.

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3. The presently known spring orifices in downtown Salado, east of I-35 (excluding Robertson Spring west of I-35), appear to all be part of an integrated fracture system as documented by dye tracer tests. The connectivity of these springs through the fracture system implies that aquatic organisms such as the Salado Salamander should hypothetically be able to move about among the springs and can be managed as a group using the USGS stream gauge.
4. The dye tracer test conducted in 2015 under higher flow conditions confirmed flow directions and connectivity data from the 2013 tracer test and revealed groundwater flow velocities of approximately 350 feet/hour or almost 6 feet/minute in the immediate area of the springs. The fact that the same springs were all connected under both high and low flow conditions is important and indicates a well-developed fracture system with strong connectivity. The high groundwater flow velocities in the immediate area of the springs are important to consider in management decisions.
5. Specific conductance* (SC) and temperature (T) measurements in cross sections of Big Boiling Spring as well as upstream and downstream of the confluence between Big Boiling Spring discharge and Salado Creek confirm the mixing patterns of groundwater and surface water from Big Boiling Spring and also confirm Rock Spring as a groundwater discharge point. The cross section data are important to quantify groundwater/surface water mixing, aid in habitat assessments, and aid in sample location selection. *Specific conductance is the ability of water to conduct electricity and is directly related to the salinity of the water.
6. Nitrogen data from field and laboratory analysis showed values that are interpreted to be slightly above expected background levels, but no nitrate values were observed to be over the drinking water limit. There were no strong trends but some of the higher values were found in the more developed areas. The nitrogen data warrant further investigation and monitoring.
7. Progress using LiDAR data to detect recharge features has been slow and time consuming, but some progress has been made. The map interpretations may help delineate some important fractures that contribute to the springs.
8. Thermography studies using a FLIR infrared camera delineated interactions between groundwater (spring flow) and surface water (Salado Creek). The infrared images helped interpret the dynamics of the potential spring habitat affected by temperature and the results will be helpful in planning management strategies for the springs as habitat *(Figure 2, below).*

Stephanie S. Wong, Doctoral Student, Hydrogeology,
Baylor University
Joe C. Yelderman Jr. Ph. D., P.G. #2941—Hydrogeology
Professor, Baylor University

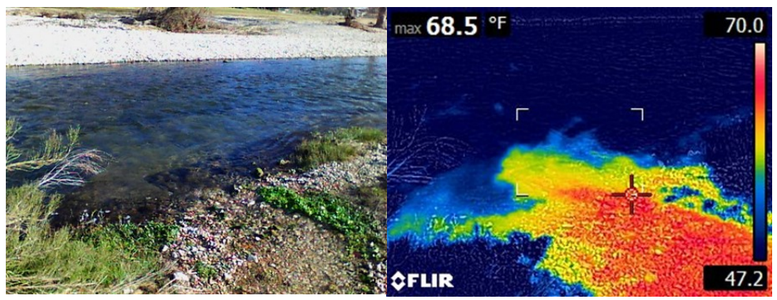


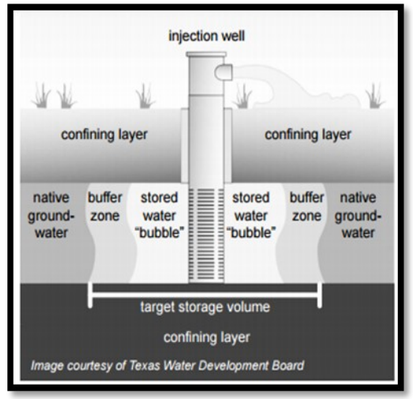
Figure 2. A digital photograph (left) and a thermal infrared image (right) of Side Spring discharging into Salado Creek.

Clearwater UWCD Encourages ASR as Theme of 16th Annual Bell County Water Symposium

The 16th Annual Bell County Water Symposium, hosted by Clearwater UWCD will be held on November 16, 2016 at Texas A&M University - Central Texas in Killeen. The theme of this year's event is Aquifer Storage and Recovery (ASR).

Recently the House Research Organization of the Texas Legislature, reported in their interim news briefs, an update on the state's studies of surface water loss and the need for ASR. In their news brief, "ASR involves collecting water during wet periods and storing it underground in an aquifer through an injection well from which it can be drawn for use during periods of peak demand."

According to the Texas Water Development Board, about 7.2 million acre-feet of water that is currently stored in surface water reservoirs evaporates in an average year. While surface reservoirs continue to be prominently featured in the recently adopted 2017 state water plan, ASR has several advantages over reservoirs that justify its expanded use. In addition to resisting water loss through evaporation, ASR does not involve the acquisition and flooding of land above ground which can be expensive and result in destruction of wildlife habitat and private property.



Components of an ASR project in a confined aquifer (from the House Research Focus Report).

Although a few Texas municipalities have used ASR for a number of years, some say a principal challenge to more widespread implementation of it is a legal and regulatory framework for water policy that is not well adapted to the technology. In 2015, the 84th Legislature enacted HB 655 by Rep. Lyle Larson, which resulted in several changes to the way ASR is regulated. The bill specified how ASR facilities must account for the water they inject and recover and the role of groundwater conservation districts in such projects. The new law establishes the same regulatory framework for all ASR projects, whether the source of the stored water is groundwater, surface water, or treated wastewater. The new law also prescribes measures designed to protect water quality in the receiving aquifer and modifies the requirement that water meet drinking water standards before being injected. CUWCD embraced this bill and believes that ASR is a critical strategy to help answer the regional question of "How can we meet the growing need for water in both Bell and Williamson Counties". Growth in the entire IH35 corridor is eminent and water is limited.

Learn more about ASR in Texas in the House Research Organization's focus report, Addressing water needs using aquifer storage and recovery.
http://www.hro.house.state.tx.us/pdf/focus/asr.pdf

Dirk Aaron, General Manager
Clearwater UWCD

(continued from page 1)

to identify the areal extent and thicknesses of brackish water-bearing geologic formations and to characterize the availability of groundwater in them.

Stakeholder meetings will be scheduled in the near future to disseminate the findings of the study concerning the availability of brackish groundwater from the Trinity aquifer and to field questions and concerns from stakeholders. The study completion deadline is August 31, 2017. Clearwater Underground Water Conservation District encourages all interested parties to stay informed on this effort by TWDB.

Appendix H

CUWCD 2016 Education and Outreach Events

Date	People	Event Information	Presentation	Booth
1/12/16	22	Jefferson Elementary – Tech Wizards Program	X	
1/13/16	450	Texas A&M AgriLife Professional Grounds Keepers & Irrigators Conference	X	X
1/19/16	150	Texas A&M AgriLife Crops & Livestock Conference		X
2/10/16	35	2016 Master Gardener Class	X	
2/22/16	46	American Heritage Girls (Girl Scout variant)	X	
3/30/16	42	Seton Hospital Harker Heights Administration Team	X	
3/31/16	40	Texas Well Owner Network Presentation	X	
4/12/16	50	Master Naturalist Training	X	
5/18/16	100	Chisholm Trail Elementary	X	
5/18/16	65	Rogers Afterschool Program Water Camp with Military 4H & Master Naturalists	X	
5/21/16	42	Rainwater Harvesting Workshop with Master Gardeners	X	
6/22/16	50	Military 4-H Annual Water Boot Camp (Fort Hood)	X	
8/6/16	20	River Ridge Ranch Town Hall Meeting	X	
8/31/16	10	Barton Springs Edwards Aquifer Conservation District	X	
9/14/16	30	Master Gardener Meeting	X	
11/16/16	135	Annual Bell County Water Symposium	X	X
Total reach	**1,287**			

Appendix I

Results of Groundwater Samples in CUWCD Lab

Test Date	District Well #	Lattitude	Longitude	Elevation	Depth (ft)	Aquifer[2]	Coliform Bacteria[3]	Ecoli	Conductivity (µs/cm)	Total Dissolved Solids (mg/L)	Salinity (mg/L)	pH	Alkalinity (mg/L)	Hardness (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphate (mg/L)	Sulfate[4] (mg/L)	Fluoride[4] (mg/L)
FY16																			
6/1/2016	E-02-1106G	31.0313737	-97.182823	489.83	unk	Alluvium	Presence	Presence	261	126	0.1	7.7	120	140	0.126	1.5	1.03	18	0.3
6/20/2016	E-14-040P	30.995267	-97.838979	759.56	97	Alluvium	Absence	Absence	412	147.3	0.2	7.1	400	380	0.007	3.7	0.11	31	0.3
10/15/2015	E-02-370G	30.996738	-97.336685	505.79	20	Austin Chalk	Presence	Absence	716	364		7.2	300	340	0.015	8.8	0.15	43	0.06
10/28/2015	E-03-177G	30.9414936	-97.538125	596.42	unk	Edwards (BFZ)	Absence	Absence	582	284		7.5	240	280	0.001	2.2	0.4	10	0.9
3/30/2016	E-03-445P	30.9942336	-97.463116	561.52	220	Edwards (BFZ)	Absence	Absence	1744	876		7.8	360	100	0.004	1.6	0.08	160	1.3
4/11/2016	E-02-3107G	30.8805707	-97.581599	767.22	unk	Edwards (BFZ)	Absence	Absence	519	251		7.4	260	260	0.001	4.6	0.09	10	0.4
7/26/2016	E-16-036G	30.967973	-97.613824		160	Edwards (BFZ)	*Not Tested*	*Not Tested*	605	387	not tested	7.36	340	300	0.002	1.19	0.003	19.5	0.30
2/10/2016	E-02-3578G	31.0274277	-97.450653	544.29	140	Edwards Equivalent	Presence	Absence	756	372		7.3	340	380	0	1.6	0.17	30	1.3
3/2/2016	E-11-052P	30.9097283	-97.773052	857.24	710	Lower Trinity	Absence	Absence	1977	991		7.8	440	100	0.001	0.3	0.06	56	2.4
6/21/2016	E-02-2547P	30.9780007	-97.817508	807.38	440	Lower Trinity	Absence	Absence	1535	765	0.8	7.5	340	220	0	1.4	0.1	180	3.6
10/13/2015	E-15-051G	30.916252	-97.678795	818	735	Middle Trinity	Presence	Absence	3250	1677		7.8	400	320	0.007	1.8	0.12	720	2.2
10/28/2015	E-03-317G	30.923729	-97.716688	816.53	685	Middle Trinity	Absence	Absence	2850	1467		7.7	320	220	0.001	0.8	0.36	920	-
11/3/2015	E-03-444P	31.0518856	-97.602125	757.92	780	Middle Trinity	Absence	Absence	1094	1781		8.2	440	180	0.005	0	0.12	1000	2.2
3/2/2016	E-02-2035G	30.9115798	-97.773712	878.98	unk	Middle Trinity	Absence	Absence	2410	1220		7.4	400	300	0	1.9	0.11	860	5.2
3/2/2016	E-03-350G	30.9193954	-97.749534	894.16	700	Middle Trinity	Presence	Presence	2220	1103		7.5	460	240	0	0.6	0.18	840	4.8
4/12/2016	E-03-449P	30.9939167	-97.494583	577.95	960	Middle Trinity	Absence	Absence	1408	702		7.8	400	140	0	0.2	0.07	130	2.1
4/28/2016	E-14-058P	30.916767	-97.764567	905.8	600	Middle Trinity	Absence	Absence	1458	726		7.8	460	120	0.05	1.6	0.06	190	3.2
5/16/2016	E-02-1364G	30.8893826	-97.732069	1023	800	Middle Trinity	Presence	Presence	-	-		-	-	-	-	-	-	-	-
5/24/2016	E-02-1364G	30.8893826	-97.732069	1023	800	Middle Trinity	Presence	Presence	2490	1251		7.6	440	380	0.047	1.1	0.06	700	2.8
6/7/2016	E-16-024P	30.972818	-97.789451		380	Middle Trinity	Absence	Absence	1423	716		7.9	400	60	0.004	0.4	0.08	110	5.2
6/9/2016	E-13-015P	30.977583	-97.819361	828.36	605	Middle Trinity	Presence	Presence	2140	1069		8	520	60	0.005	0.5	0.09	30	5.6
6/21/2016	E-03-037G	30.9686603	-97.804537	843	475	Middle Trinity	Absence	Absence	1680	841	0.9	7.5	360	300	0.001	0.1	0.1	360	5.6
6/21/2016	E-05-110P	30.9777648	-97.803352	826.8	460	Middle Trinity	Absence	Absence	1309	648	0.7	8	380	140	0.005	1.2	0.06	40	4.4
6/21/2016	E-12-054P	30.96724	-97.79533	853.07	560	Middle Trinity	Presence	Absence	1514	750	0.8	8	440	60	0.003	2	0.15	40	4.8
7/26/2016	E-02-2829G	30.9795935	-97.653529	735.32	850	Middle Trinity	Absence	Absence	1781	1139	not tested	7.49	340	100	0.010	0.09	0.447	221	3.78
8/4/2016	E-05-054P	30.9237167	-97.75265	860.21	620	Middle Trinity	Absence	Absence	1263	631	0.63	8.03	360	80	0.005	0.05	0.15	123	3.97
8/23/2016	E-13-025P	30.9690556	-97.813278	862.16	490	Middle Trinity	Absence	Absence	1479	731	0.7	8.21	340	100	0.005	0.97	0.034	165	3.98
8/31/2016	E-03-444P	31.0518856	-97.602125	757.92	780	Middle Trinity	Presence	Absence	3380	1731	1.76	7.74	480	100	0.007	2.14	0.01	324	4.34
10/1/2015	E-05-107G	31.156344	-97.480873	695.59	444	Upper Trinity	Absence	Absence	1668	843		7.6	420	340	0.005	2.5	0.13	21	2.1

Summary of Data Collected by USGS at upper, middle, and lower Trinity wells in 2015

	units	CTC (upper)	Cearley (lower)	Stillman Valley (middle)
Sample date	--	9/22/2015	9/24/2015	9/28/2015
Sample time	--	1600	500	1600
temperature (water)	°C	24.68	29.34	25.54
specific conductance	µs/cm	2922	2991	2429
dissolved oxygen	mg/L	5.29	0.05	0.62
pH		7.34	8.3	7.61
alkalinity	mg/L as $CaCO_3$	280.4	303.7	339
bicarbonate alk.	mg/L as HCO_3	340.8	367.4	409.9
dissolved solids	tons/acre-ft	2.682	2.549	2.234
hardness	mg/L as CaCO3	628.4	88.53	224.9
NH_3 + organic N, wf	mg/L as N	2.709	1.118	1.026
NH_3 + organic N, wu	mg/L as N	2.904	1.067	1.025
NO_3 + NO_2, wf	mg/L as N	<0.01	<0.01	0.10806
NO_2, wf	mg/L as N	0.00989	<0.001	0.0137
Organic nitrogen, wf	mg/L as N	0.431	0.073	0.121
orthophosphate, wf	mg/L as P	0.00629	0.00876	0.01256
Phosphorous, wf	mg/L	<0.01	<0.01	0.013
Phosphorous, wu	mg/L	0.017	0.017	0.019
Calcium, wf	mg/L	73.41	17.75	32.89
Magnesium, wf	mg/L	107.8	9.374	34.38
Potassium, wf	mg/L	10.26	6.408	19.43
Sodium, wf	mg/L	411.9	858.4	457.6
Bromide, wf	mg/L	1.3747	3.8118	0.6956
Chloride, wf	mg/L	226.659	603.482	105.777
Fluoride, wf	mg/L	2.762	1.151	7.078
Sulfate, wf	mg/L	948.611	163.658	761.559
Aluminum, wf	µg/L	<6	<6	58.82
Barium, wf	µg/L	9.364	77.18	16.656
Beryllium, wf	µg/L	0.279	0.0648	0.6148
Cadmium, wf	µg/L	<0.06	<0.06	<0.06
Chromium, wf	µg/L	<0.6	<0.6	<0.6
Cobalt, wf	µg/L	1.4318	<0.1	<0.1
Copper, wf	µg/L	<1.6	<1.6	<1.6
Lead, wf	µg/L	0.4272	<0.08	0.1426
Lithium, wf	µg/L	348.04	149.4	272.45
Manganese, wf	µg/L	2.73	79.56	2.894
Molybdenum, wf	µg/L	3.844	2.768	0.4344
Nickel, wf	µg/L	4.296	<0.4	0.464
Strontium, wf	µg/L	11,360	4,851	13,550
Vanadium, wf	µg/L	0.4798	0.2998	0.7080
Zinc, wf	µg/L	25.3	<4	<4
Antimony, wf	µg/L	0.4	<0.054	0.0898
Arsenic, wf	µg/L	1.0634	<0.2	0.4196
Boron, wf	µg/L	4,533	1,437	5,623.5
Selenium, wf	µg/L	0.1914	0.3256	0.1122
Uranium, wf	µg/L	0.56	0.028	0.0714
Desulfinylfiprinol amide, wf	µg/L	<0.029	<0.029	E0.003
Desulfinylfiprinol, wf	µg/L	<0.012	<0.012	0.0042
Tritium, wu	Tu	0.97	0.4	-0.09
δO^{18}	‰	-4.67	-5.22	-4.76
δH^{2}	‰	-28.14	-32.26	-28.02
Sr -87/Sr-86	per mil	0.70769	0.70844	0.70874

Summary of Synoptic Sampling by USGS at 6 Springs on Salado Creek on November 4, 2015

	units	Robertson	Anderson	Benedict	Critchfield	Little Boiling	Big Boiling
Sample date	--	11/4/2015	11/4/2015	11/4/2015	11/4/2015	11/4/2015	11/4/2015
Sample time	--	900	1100	1230	1345	1500	1515
gage height	ft	2.12	2.19	2.14	2.11	2.11	2.11
discharge	ft^3/s	66	75	69	64	64	64
temperature (water)	°C	20.77	21.08	21.01	20.98	20.91	20.88
specific conductance	µs/cm	556	567	559	574	574	572
dissolved oxygen	mg/L	7.71	6.38	5.63	7.44	7.56	7.65
pH		6.91	7.11	7.06	7.06	7.08	7.01
turbidity	NTRU	0.5	1.76		0.22	0.22	0.48
alkalinity	mg/L as $CaCO_3$	237.2	229.5	227.4	241.2	250.9	251.7
bicarbonate alk.	mg/L as HCO_3	288.7	279.1	276.8	293.5	305.4	360.4
NH_3 + organic N, wf	mg/L as N	0.132	0.142	0.158	0.089	0.143	0.108
NH_3 + organic N, wu	mg/L as N	0.083	0.139	0.135	0.081	0.07	0.089
NO_3 wf	mg/L as N	4.893	3.145	3.28	4.659	4.893	4.827
orthophosphate, wf	mg/L as P	0.00802	0.01075	0.00951	0.00961	0.00831	0.0083
Calcium	mg/L	85.72	86.67	84.4	89.37	89.92	89.14
Magnesium	mg/L	13.68	11.53	11.77	14.07	13.86	13.46
Potassium	mg/L	1.27	1.787	1.723	1.466	1.228	1.2
Sodium	mg/L	10.21	14.53	14.33	11.57	10.99	10.95
Chloride	mg/L	12.412	18.496	17.782	13.778	13.537	13.425
Bromide	mg/L	0.1302	0.1078	0.1088	0.1126	0.1095	0.1063
Fluoride	mg/L	0.269	0.374	0.363	0.275	0.277	0.277
Silica	mg/L	10.31	10.4	10.1	10.4	10.35	10.25
Sulfate	mg/L	18.98	23.493	22.843	19.821	19.456	19.198
Aluminum	µg/L	<3	<3	<3	<3	<3	<3
Barium	µg/L	44.36	42.49	42.8	45.26	45.57	45.71
Beryllium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Cadmium	µg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Chromium	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Cobalt	µg/L	0.0559	0.077	0.0746	0.0783	0.0746	0.0869
Copper	µg/L	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Lead	µg/L	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Lithium	µg/L	4.618	5.34	5.149	5.151	4.764	4.776
Manganese	µg/L	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Molybdenum	µg/L	0.5357	1.603	1.474	0.6524	0.6018	0.5726
Nickel	µg/L	0.4587	0.5545	0.593	0.379	0.4673	0.4406
Silver	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Strontium	µg/L	218.4	241.1	234.6	231.3	228.6	229.1
Thallium	µg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Vanadium	µg/L	2.254	2.011	1.992	2.222	2.145	2.142
Zinc	µg/L	<2	<2	<2	<2	<2	<2
Antimony	µg/L	0.0278	0.0655	0.0652	0.0442	0.0447	0.0576
Arsenic	µg/L	0.3421	0.4542	0.4279	0.3621	0.3339	0.3257
Boron	µg/L	61.61	69.99	69.73	62.56	62.47	63.1
Selenium	µg/L	0.6038	0.3454	0.3757	0.5085	0.5445	0.5264
Uranium	µg/L	0.7247	0.6969	0.6798	0.771	0.7449	0.7434
CIAT	µg/L	E0.0110	E0.0087	E0.0093	E0.013	E0.0112	E0.0114
Atrazine	µg/L	0.0052	<0.008	0.0052	0.0057	0.0053	0.0053
Metolachlor	µg/L	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
Prometon	µg/L	<0.012	0.0049	0.0051	<0.012	<0.012	<0.012
Strontium 87/86	‰	0.70869	0.70862	0.70863	0.70875	0.70869	0.70873
δO^{18}	‰	-4.82	-4.68	-4.77	-4.54	-4.48	-4.55
δH^2	‰	-30.5	-28.4	-29.4	-26.4	-26.4	-25.5
δN^{15} (in nitrate)	‰	6.49	6.87	6.71	6.15	5.94	6
δO^{18} (in nitrate)	‰	5.18	5.5	5.5	5.22	5.13	5.33

Appendix J

Clearwater Underground Water Conservation District
Every drop counts!

Contact Us | Directions | Public Records

Main | District Overview | News | Aquifer Science | Salado Springs | Regulatory Programs | Education

Rainwater Harvesting

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

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

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

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

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

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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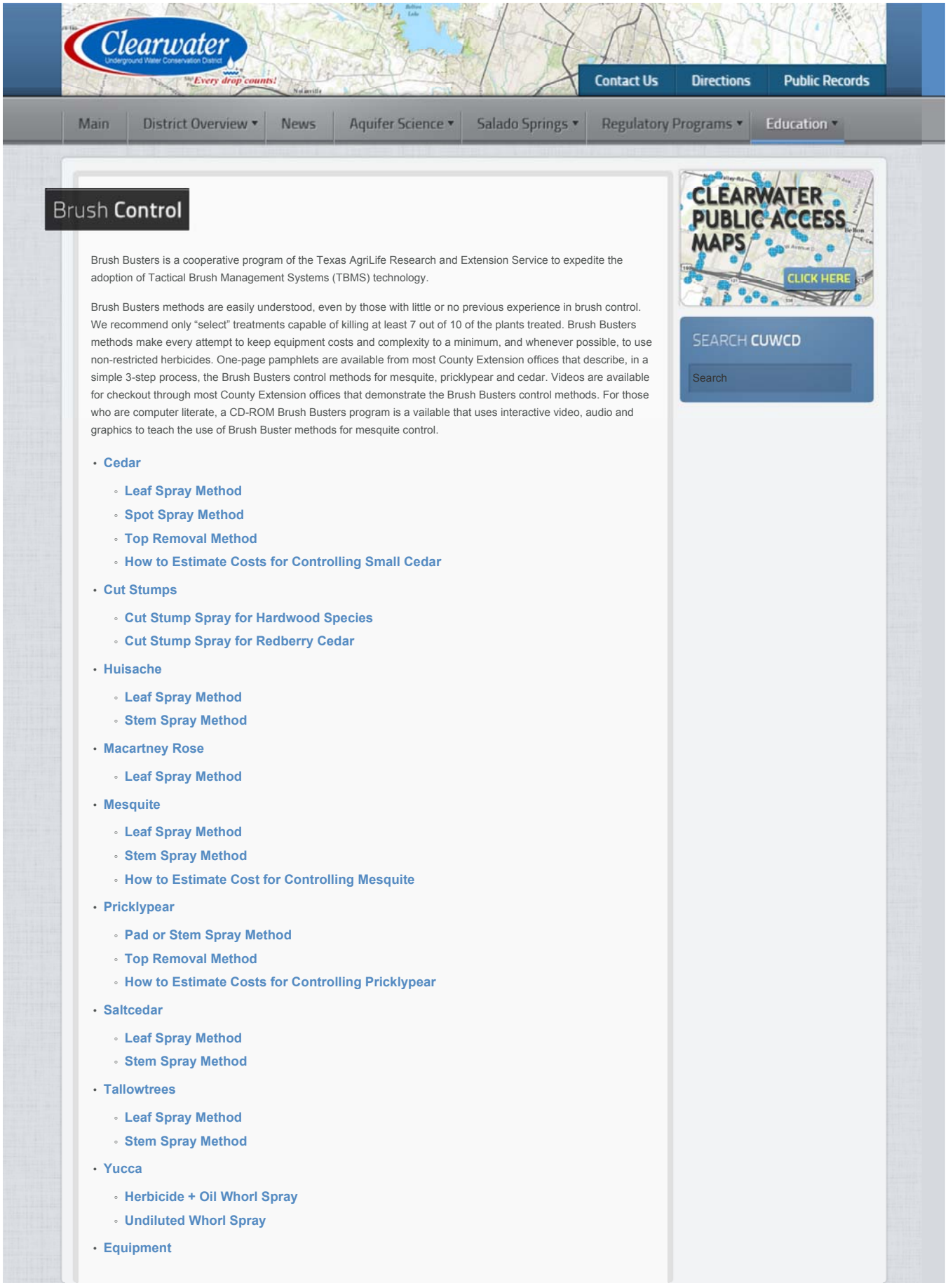
Appendix K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Underground Water Conservation District
Every drop counts!
Contact Us
Directions
Public Records
Main
District Overview
News
Aquifer Science
Salado Springs
Regulatory Programs
Education
Brush Control
Brush Busters is a cooperative program of the Texas AgriLife Research and Extension Service to expedite the adoption of Tactical Brush Management Systems (TBMS) technology.
Brush Busters methods are easily understood, even by those with little or no previous experience in brush control. We recommend only "select" treatments capable of killing at least 7 out of 10 of the plants treated. Brush Busters methods make every attempt to keep equipment costs and complexity to a minimum, and whenever possible, to use non-restricted herbicides. One-page pamphlets are available from most County Extension offices that describe, in a simple 3-step process, the Brush Busters control methods for mesquite, pricklypear and cedar. Videos are available for checkout through most County Extension offices that demonstrate the Brush Busters control methods. For those who are computer literate, a CD-ROM Brush Busters program is a vailable that uses interactive video, audio and graphics to teach the use of Brush Buster methods for mesquite control.
Cedar
Leaf Spray Method
Spot Spray Method
Top Removal Method
How to Estimate Costs for Controlling Small Cedar
Cut Stumps
Cut Stump Spray for Hardwood Species
Cut Stump Spray for Redberry Cedar
Huisache
Leaf Spray Method
Stem Spray Method
Macartney Rose
Leaf Spray Method
Mesquite
Leaf Spray Method
Stem Spray Method
How to Estimate Cost for Controlling Mesquite
Pricklypear
Pad or Stem Spray Method
Top Removal Method
How to Estimate Costs for Controlling Pricklypear
Saltcedar
Leaf Spray Method
Stem Spray Method
Tallowtrees
Leaf Spray Method
Stem Spray Method
Yucca
Herbicide + Oil Whorl Spray
Undiluted Whorl Spray
Equipment
CLEARWATER PUBLIC ACCESS MAPS
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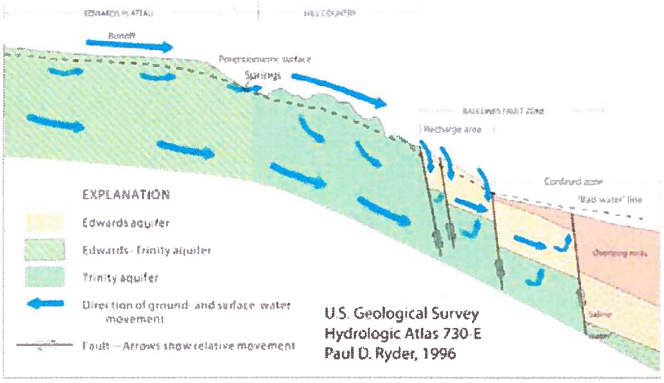
Appendix L

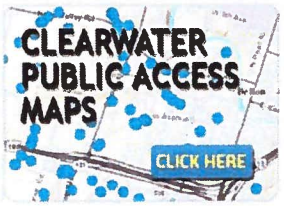
Recharge Enhancement



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

Best Management Practices for Recharge Enhancement

Onion Creek Recharge Enhancement



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Appendix M

Add a Water Level Measurement

Clearwater UWCD - Edwards BFZ Monitor Wells

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

State #	58-13-502	58-04-627	58-04-502	58-04-623	58-04-602	58-04-628	58-04-702	58-04-816						
CUWCD #	M-12-014G	N2-03-004G	N2-02-050G	N2-02-002G	N2-02-003G	N2-08-008G	N2-04-005G	N2-05-002G	E-10-005P	E-04-077P	N2-11-005P	M-14-001P	E-14-014P	N2-15-004P
Well Name	Bartlett #1	Salado ISD #1	Salado ISD #2	Stagecoach	Salado WSC#1	Cemetary	Patterson	Rest Stop	Coppin	Peters	Broeker	Gault #1	Gault #3	Salado CS1
Highest	-40.13	-36.17	-38.52	-67.67	-23.87	-15.78	-69.82	-118.18	-60.00	-31.00	-68.70	-53.32	-52.30	-45.00
Lowest	-76.79	-52.33	-56.14	-95.25	-63.20	-89.10	-78.25	-129.44	-74.95	-41.92	-79.70	-59.10	-64.00	-64.60
Jan-06	-50.29	-43.34	-51.79	-83.00	-36.50		-72.83							
Jul-06	-52.29	-43.58	-52.08	-95.25	-41.84		-72.73							
Sep-06	-55.92	-43.09	-53.08	-82.75	-34.09		-72.87							
Oct-06	-60.37	-44.55	-52.96	-85.75	-33.21		-72.95							
Nov-06	-65.12	-43.75	-52.33	-81.00	-30.09		-73.05							
Jan-07	-60.79	-40.84	-49.50	-80.30	-27.55		-72.08							
Jul-07	-49.45	-36.17	-44.83	-72.34	-31.50		-69.87							
Jan-08	-46.62	-41.92	-49.83	-86.51	-31.42		-72.07							
Jul-08	-46.46	-43.59	-52.16	-72.34	-40.17		-69.82	-124.80						
Jan-09	-61.04	-43.42	-51.58	-88.75	-38.92	-71.91	-72.88	-125.47						
Jul-09	-63.33	-51.50	-53.66	-85.67	-34.92	-83.61	-73.19	-128.15						
Jan-10		-39.62	-48.38	-67.67	-27.12	-39.81	-70.43	-118.18	-60.00					
Jul-10	-58.04	-42.12	-50.73	-81.67	-31.53	-72.83		-120.46						
Jan-11	-58.80	-43.00	-49.35	-82.64	-31.43	-64.63	-72.05	-121.76						
Jul-11	-61.21	-44.46	-53.49	-87.21	-35.52	-81.51	-71.05	-125.39						
Sep-11	-68.59	-45.82	-54.03	-89.22	-37.83	-89.10	-71.15	-126.41						
Nov-11	-76.79	-44.42	-52.83	-83.62	-32.53	-80.97	-72.08	-126.09			-78.00			
Jan-12	-75.99	-42.62	-50.23	-79.72	-30.73	-64.78	-74.20	-125.18						
May-12	-67.39	-41.82	-50.83	-81.92	-31.20	-79.17	-73.83	-123.57						
Jan-13	-68.90	-42.22	-49.83	-85.40	-32.40	-71.54	-71.20	-125.18						
May-13	-63.00	-42.02	-50.03	-86.52	-31.57	-64.79	-73.57	-126.78						
Aug-13	-64.70	-44.42	-52.53	-84.12	-32.17	-84.93	-73.70	-129.44	-74.95		-68.70			
Nov-13		-43.70	-49.73	-81.12	-29.37	-53.35	-73.60	-125.05	-68.55	-34.80				
Feb-14	-62.20	-42.22	-49.93	-80.02	-30.17	-67.54	-73.64	-124.22	-68.65	-35.00	-74.40	-59.10	-52.30	
May-14	-64.40	-46.88	-52.17	-90.28	-30.97	-72.25	-73.98	-125.66	-72.35	-40.20	-78.60	-57.20	-56.20	
Aug-14	-65.80	-47.08	-52.67	-91.78	-33.77	-82.71	-74.24	-128.09	-72.55	-40.40		-57.30	-55.80	
Nov-14	-59.80	-52.33	-43.92	-88.62	-31.17	-77.79	-74.33	-127.60	-69.25	-35.40	-79.70	-58.58	-52.60	
Jan-15	-62.00	-49.13	-41.32	-79.32	-29.57	-30.01	-73.77	-125.52	-69.05	-35.70	-74.30	-59.01	-52.50	
Jun-15	-56.80	-47.23	-38.52	-76.42	-26.97	-23.43	-72.97	-121.67	-62.75	-35.40	-72.10	-53.32	-52.90	-45.00
Sep-15	-62.50	-45.68	-50.57	-80.88	-27.67	-77.55	-72.70	-122.76	-70.85	-41.92	-77.90	-58.26	-55.80	-64.60
Nov-15	-61.95	-40.43	-45.62	-72.40	-23.87	-16.17	-72.03	-120.44	-62.90	-37.62	-74.50	-54.33	-54.10	-48.40
Jan-16	-58.40	-40.38	-47.21	-70.94	-24.57	-61.53	-71.91	-119.60	-63.90	-35.51	-75.40	-57.16	-53.90	-48.01
Apr-16	-53.50	-39.72	-47.73	-70.06	-26.27	-15.78	-71.39	-120.16	-64.25	-33.40	-73.10	-56.49	-52.70	-47.70
Aug-16	-56.60		-48.50	-75.80	-25.40	-53.40	-71.40	-119.40			-75.40	-56.90		-61.20
Dec-16					-27.60	-51.22	-71.93	-121.67				-57.74		
Jan-17	-54.40	-42.40	-49.00	-77.40	-27.80	-63.20	-72.00	-121.90			-76.10	-58.00	-64.00	-49.10
Since Last	2.20	-2.68	-0.50	-1.60	-0.20	-11.98	-0.07	-0.23	-0.35	2.11	-0.70	-0.26	-11.30	12.10
Historic	-11.78	-2.60	1.50	7.99	1.47	8.71	-1.00	2.90	-4.25	-2.40	1.90	1.10	-11.70	-4.10

	E-line Measurement
	Sonic Measurement
	TWDB Measurement
	No Reading Available

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

Minimum Number of Measurements:	5
Average Drawdown	**0.36 ft/yr**
Drawdown of Water Level	
Increase of Water Level	

Add a Water Level Measurement

Clearwater UWCD - Upper Trinity Monitor Wells

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

State #	40-57-902	40-57-903		40-58-201									
CUWCD #	E-02-721G	E-02-722G	E-02-804G	N2-09-006P									
Well Name	McCallum #1	McCallum #2	Dobson	CTC Campus									
Highest	-132.42	-131.92	-302.80	-77.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lowest	-173.83	-174.07	-386.05	-87.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov-06	-143.33	-143.25											
Jan-07	-145.50	-145.00	-335.75										
Jul-07	-132.42	-131.92	-324.50										
Jan-08	-135.67	-135.17	-328.71										
Jul-08	-153.00	-152.25	-338.92										
Jan-09	-146.59	-145.83	-356.42										
Jul-09	-160.84	-160.25	-359.83										
Jan-10	-153.27	-152.83	-381.65	-87.59									
Jul-10	-151.83	-152.07		-77.83									
Jan-11	-150.90	-150.80	-382.40	-79.64									
Jul-11	-168.03	-166.50	-375.31	-80.53									
Sep-11	-171.33	-171.67	-385.35	-81.01									
Nov-11	-165.03	-165.10	-381.65	-80.28									
Jan-12	-157.73	-158.07	-378.05	-79.72									
May-12	-157.63	-158.37	-376.65	-78.99									
Jan-13	-156.23	-158.07	-374.40	-81.66									
May-13	-162.03	-162.07	-386.05	-82.13									
Aug-13	-173.83	-174.07	-307.15	-82.70									
Nov-13	-160.43	-160.77	-306.45	-82.35									
Feb-14	-158.03	-158.47	-306.75	-82.68									
May-14	-164.17	-163.73	-309.05	-83.07									
Aug-14	-170.93	-168.47	-309.15	-83.56									
Nov-14	-166.28	-167.37	-308.48	-83.42									
Jan-15	-158.83	-159.17	-306.15	-83.54									
Jun-15	-154.43	-154.97	-307.15	-83.92									
Sep-15	-169.07	-168.73	-309.85	-83.43									
Nov-15	-156.73	-157.27	-306.15	-82.72									
Jan-16	-155.92	-156.40	-306.42	-83.50									
Apr-16	-156.20	-157.86	-306.10	-83.82									
Aug-16	-160.20	-163.30	-305.40	-84.45									
Dec-16	-154.50	-154.60	-302.80	-83.91									
Since Last	5.70	8.70	2.60	0.54									
Historic	-11.17	-11.35	32.95	3.68									

	E-line Measurement
	Sonic Measurement
	TWDB Measurement
	No Reading Available

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

The average drawdown goal per year is -3.1 feet.

Minimum Number of Measurements:	5
Average Drawdown	**-0.04 ft/yr**
Drawdown of Water Level	
Increase of Water Level	

Add a Water Level Measurement

Clearwater UWCD - Middle Trinity Monitor Wells

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

State #	58-04-104	40-58-903	58-03-503	58-05-901	40-57-601	58-02-302	58-03-504	58-02-901	58-04-405	58-04-514	58-04-406	58-03-701				
CUWCD #	E-08-005P	E-06-063G	N2-07-003G	N2-02-013G	N2-09-007P	M-16-001G	E-10-003P	M-13-001P	E-05-083P	E-02-1409G	E-02-1406G	M-14-002P	N2-11-003G	N2-04-001P	N2-08-002P	E-07-001P
Well Name	Stephenson	Tex Vet	Crushed Stone	Holland	Copperas Cove	River Ridge	Christian	Stillman	Murphy	H.Spring Park	H. Springs	Gault Site #2	UMHB	Strike Zone	Salado ISD	Brooks
Highest	-369.54	-361.40	-344.42	1.20	-295.47	-256.25	-557.40	-460.80	-282.63	-314.00	-375.10	-629.44	-304.00	-310.00	-312.70	-651.00
Lowest	-433.63	-442.33	-451.20	-56.00	-319.94	-344.72	-586.40	-482.40	-417.44	-364.65	-422.60	-655.90	-328.10	-334.70	-339.30	-679.60
Jan-06				-25.96												
Jul-06				-28.30												
Sep-06				-27.96												
Oct-06				-21.46												
Nov-06		-399.41		-27.13					-313.83							
Jan-07		-375.25		-26.10		-266.88			-282.63							
Jul-07		-379.58		-27.04		-256.25			-288.42							
Jan-08		-382.50	-344.42	-28.80		-261.92			-291.92							
Jul-08		-442.33	-376.17	-30.79		-280.17			-334.42							
Jan-09	-369.54	-389.58	-377.92	-34.04		-284.25			-323.76							
Jul-09	-378.46	-370.17	-377.25	-36.63		-293.58			-368.58							
Jan-10	-372.54	-362.93	-383.50	-36.63	-306.94	-281.48			-326.54							
Jul-10	-378.38	-378.53	-375.55	-38.83	-295.47	-287.33			-345.24							
Jan-11	-381.23	-380.93	-381.23	-39.90	-308.10	-286.78			-335.00							
Jul-11	-405.56	-362.35	-414.48	-41.13	-313.40	-312.02			-403.38							
Sep-11	-412.08	-362.18	-424.33	-41.73	-319.94	-325.18			-404.70							
Nov-11	-413.38	-364.70	-416.48	-42.13	-316.65	-319.40			-386.04							
Jan-12	-403.38	-362.73	-409.97	-43.13	-311.90	-308.38			-357.34							
May-12	-399.68	-362.33	-404.97	-44.13	-309.74	-304.18			-376.80							
Jan-13	-401.58	-361.40	-406.98	-42.10	-312.56	-303.08			-370.60							
May-13	-412.28	-367.53	-422.08	-50.40	-311.45	-312.78	-557.40	-479.00	-388.94							
Aug-13	-423.28	-371.53	-431.48	-50.00	-317.87	-325.18	-570.20	-481.20	-417.44	-364.65	-422.60					
Nov-13	-422.78	-371.13	-432.18	-51.30	-314.73	-326.88	-574.40	-475.00	-386.24	-336.35	-392.20					
Feb-14	-417.18	-370.23	-439.28	-51.30	-311.78	-321.88	-567.80	-467.50	-374.84	-323.35	-385.00	-630.00				
May-14	-418.93	-375.07	-441.33	-56.00	-313.33	-331.62	-574.70	-476.30	-390.46	-335.65	-403.20	-645.00				
Aug-14	-426.63	-375.17	-446.93	-55.30	-314.87	-338.32	-583.20	-479.70	-412.16	-352.35	-410.90	-655.90				
Nov-14	-433.63	-377.57	-447.63	-55.40	-316.99	-344.72	-586.40	-482.40	-406.66	-349.25	-412.40	-650.98	-328.10	-334.70	-339.30	-679.00
Jan-15	-421.68	-372.33	-445.93	-45.00	-312.52	-329.28	-570.70	-470.90	-375.64	-324.75	-387.20	-648.91	-319.70	-329.00	-321.80	-666.20
Jun-15	-416.58	-372.83	-428.68	-36.80	-307.36	-321.68	-565.30	-467.90	-377.24	-324.45	-385.30	-630.83	-315.10	-326.40	-320.80	-660.20
Sep-15	-430.10	-377.37	-451.20	-35.90	-314.51	-343.02	-584.80	-481.30	-411.66	-352.65	-412.70	-652.11	-328.10	-333.20	-337.60	-679.60
Nov-15	-424.68	-373.63	-436.58	-23.20	-313.26	-334.48	-573.10	-475.60	-378.34	-327.65	-388.60	-642.10	-315.10	-323.20	-326.20	-664.80
Jan-16	-422.30	-370.10	-430.53	-21.90	-307.95	-328.20	-564.70	-470.00	-372.13	-320.35	-383.90	-639.33	-310.10	-320.00	-317.80	-658.20
Apr-16	-414.68	-368.23	-423.38	-21.10	-306.26	-325.42	-558.80	-461.70	-369.94	-317.25	-375.20	-629.44	-304.00	-311.30	-312.70	-651.00
Aug-16	-415.40	-373.90	-432.20	-26.60	-309.65	-332.30	-559.10	-464.00	-371.10	-318.20	-375.80	-629.95	-307.20	-313.20	-323.40	-657.20
Dec-16		-372.40	-429.50		-308.32		-563.30	-460.80	-365.90	-314.00	-375.10	-633.60	-306.10	-310.00	-314.80	-651.90
Jan-17	-412.20			-19.80	-308.10	-326.20						-635.50				
Since Last	3.20	1.50	2.70	6.80	0.22	6.10	-4.20	3.20	5.20	4.20	0.70	-1.90	1.10	3.20	8.60	5.30
Historic	-42.66	27.01	-85.08	-21.00	-1.16	-59.32	-5.90	18.20	-52.07	50.65	47.50	-5.50	22.00	24.70	24.50	27.10

Minimum Number of Measurements: 5

E-line Measuren
Sonic Measuren
TWDB Measurer
Air line Measure
No Reading Ava

The desired future conditions established by Clearwater Underground Water Conservation District for the Middle Trinity is no more than 286 feet of drawdown after 50 years.

The average drawdown goal per year is -5.72 feet.

2.55 ft/yr

Add a Water Level Measurement

Clearwater UWCD - Lower Trinity Monitor Wells

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

State #	40-53-406		40-63-501	58-06-301	40-57-602		58-05-202		40-62-501	40-54-701	40-61-509		
CUWCD #	N2-02-022G	N2-08-006P	N2-02-034G	N2-04-010P	M-09-002P	N2-13-002P	N2-02-024G	N2-10-001P	M-13-005G	M-13-006G	M-13-007G		
Well Name	Moffat #1	Moffat #2	East Bell #1	East Bell #2	Copperas Cove	JHM	Armstrong #1	Armstrong #2	Acres	Cearly	PeaRidge		
Highest	-332.00	-477.00	-230.00	-268.00	-290.13	-175.30	-246.70	-305.80	-136.13	-259.00	-31.00	0.00	0.00
Lowest	-482.31	-491.10	-275.00	-378.00	-298.30	-185.10	-254.60	-356.30	-467.50	-472.58	-250.00	0.00	0.00
Jan-06													
Jul-06													
Jan-07	-333.00												
Jul-07	-381.26												
Jan-08	-332.00												
Jul-08	-358.16												
Jan-09	-436.70												
Jul-09	-358.16												
Jan-10	-399.74				-291.16								
Jul-10	-408.98				-292.71								
Jan-11	-362.78				-290.13								
Jul-11	-348.82			-268.00	-290.25								
Sep-11	-459.36				-291.93								
Nov-11	-457.05				-292.44								
Jan-12	-455.49			-378.00	-293.85								
May-12	-458.80			-278.00	-293.47								
Jan-13	-471.09	-485.70		-280.00	-294.22								
May-13	-468.59			-285.00	-294.96								
Aug-13	-475.39			-282.00	-295.11			-329.83					
Nov-13	-468.89			-290.00	-295.85	-175.41							
Feb-14	-468.50	-478.30	-230.00	-290.00	-295.70								
May-14	-471.81	-481.70	-230.00	-285.00	-296.14	-175.30							
Aug-14	-474.01	-483.70	-230.00	-285.00	-296.00	-177.25			-382.00	-456.00	-241.1		
Nov-14	-472.68	-479.49	-235.00	-290.00	-296.91	-179.12	-247.90	-329.60		-456.40			
Jan-15	-467.39	-477.00	-235.00	-290.00	-296.84	-176.35	-246.70	-327.70	-340.10	-456.00	-241.6		
Jun-15	-467.79	-477.40	-230.00	-290.00	-296.69	-176.35	-248.50	-331.00	-339.50	-456.20			
Sep-15	-482.31	-491.10	-275.00	-290.00	-297.06	-182.10	-247.30	-330.60	-347.84	-469.26			
Nov-15	-471.69	-481.30	-270.00	-290.00	-297.43	-178.97	-248.80	-330.80	-349.07	-468.20			
Jan-16	-470.80	-480.90	-260.00	-295.00	-297.43	-177.20	-249.00	-331.10	-467.50	-348.98			
Apr-16	-472.20	-482.40	-260.00	-295.00	-297.21	-177.82	-250.30	-332.10	-467.29	-349.10			
Aug-16	-479.10	-491.10	-252.80	-334.10	-297.10	-178.00	-252.80	-334.10	-351.60				
Dec-16	-478.60	-491.00	-268.00	-290.00	-298.17		-252.90	-305.80	-352.84	-472.58	-250		
Jan-17	-477.90	-489.10	-262.00	-290.00	-298.30	-185.10	-254.60	-356.30	-353.20	-472.30	-249.9		
Since Last	0.70	1.90	6.00	0.00	-0.13	-7.10	-1.70	-50.50	-0.36	0.28	0.10		
Historical	-142.90	-3.40	-32.00	-22.00	-7.14	-9.69	-6.70	-26.47	-217.07	-213.30	-218.90		

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

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

The average drawdown goal per year is -6.38 feet.

Minimum Number of Measurements:	5
Average Drawdown	**-4.09 ft/yr**
Drawdown of Water Level	
Increase of Water Level	

Appendix N

16th Annual

Bell County Water Symposium

"Showcasing Groundwater Management, Science & Education"

November 16, 2016

8:00 a.m.—4:30 p.m.

Location: Texas A&M University Central Texas, 1001 Leadership Place, Killeen

AGENDA

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

8:30 a.m. **Welcome & Introduction & Theme of the Day**
Leland Gersbach, Board President, Clearwater UWCD

8:35 a.m. **Understanding Groundwater Issues and Challenges Across the State**
Sarah Rountree Schlessinger, Exec. Director, Tx Alliance of Groundwater Conservation Districts
Ty Embrey , Attorney, Lloyd Gosselink Rochelle and Townsend

9:00 a.m. **Clearwater UWCD "State of the District"**
Leland Gersbach, Board President, Clearwater UWCD
Dirk Aaron, General Manager, Clearwater UWCD

9:30 a.m. **"Finding Balance between Regulation, Management and Property Rights in the Central Carrizo-Wilcox" Groundwater Management Showcase**
Gary Westbrook, General Manager, Post Oak Savanah Groundwater Conservation District

10:00 a.m. **10 Minute Break**

10:20 a.m. **"Understanding the Geology of the Aquifers for *ASR*"**
James Beach, P.G. Senior Vice-Pres., LBG-Guyton Associates

10:45 a.m. **Aquifer Storage and Recovery "Its State in the STATE"**
Matt Webb, Hydrologist, Texas Water Development Board

11:15 a.m. **Have You Met My Water Management Friend ASR?**
An Introduction to Aquifer Storage and Recovery in Texas
Aaron Collier, Vice President, Collier Consulting Inc.

11:45 a.m. **Looking Closely at Aquifer Storage and Recovery for Central Texas**
Dr. June Wolfe, Associate Research Scientist, Texas A&M AgriLife Research

12:15 **Lunch Key Note Address "Youth Water Initiative for Texas, 4-H_2O Ambassador Program"**
David Smith, 4-H_2O Coordinator, Texas AgriLife Extension Service
Sarah Hamm, Executive Director, Texas 4-H Foundation

1:00 p.m. **An Evolving Understanding of the Hosston Layer of the Trinity Aquifer**
Mike Keester, Senior Hydrogeologist, LBG-Guyton Associates

1:30 p.m. **"What We Now Know" Edwards BFZ Aquifer** *Dr. Joe Yelderman & Stephanie Wong, Baylor University*

2:15 p.m. **"Water Shed Health & Protection"** *Lisa Prcin, Research Associate, Texas A&M AgriLife Research*

2:45 p.m. **Break**

3:00 p.m. **Edwards Aquifer Geo-Chemistry Investigation:** *Chris Braun, US Geological Survey*

3:30 p.m. **Evaluation:** *Whitney Grantham, Natural Resource Extension Agent , Texas A&M AgriLife Extension*

Symposium Sponsors

Clearwater UWCD
LBG-Guyton Associates
HALFF Associates
Texas Well Owner Network

Lloyd Gosselink Attorneys at Law
Bell County Engineers Office
Texas A&M AgriLife Extension Service
Baylor University, Department of Geology

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