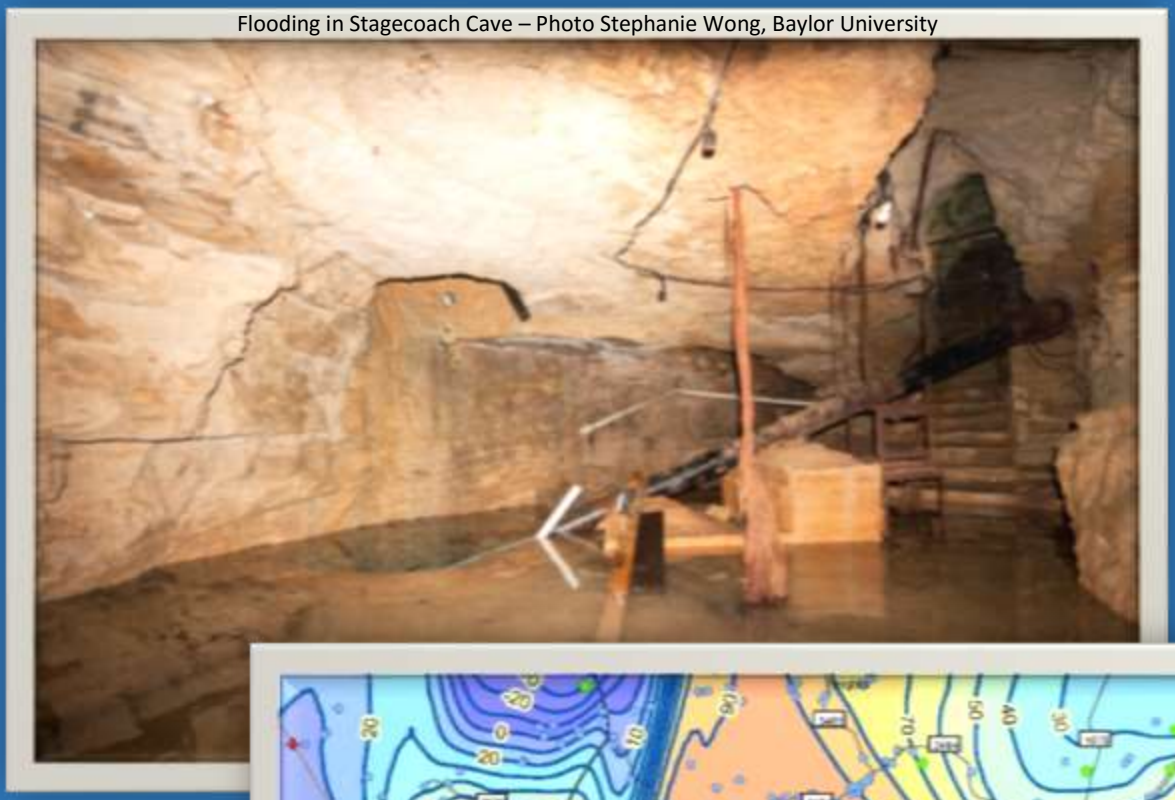
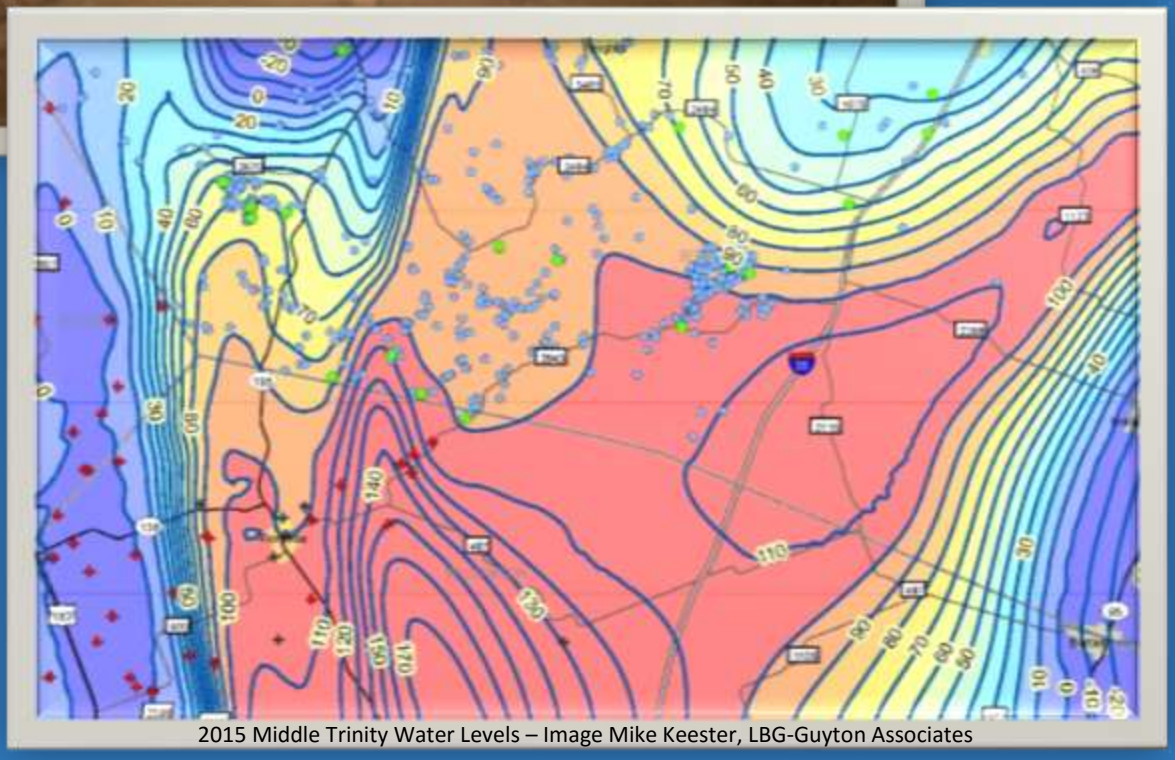
# 2015 ANNUAL REPORT



Flooding in Stagecoach Cave – Photo Stephanie Wong, Baylor University



2015 Middle Trinity Water Levels – Image Mike Keester, LBG-Guyton Associates


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 2015*

*The Annual Report for Fiscal Year 2015 (FY15) is presented to the Directors of the Clearwater Underground Water Conservation District (CUWCD or District) by May of the following Fiscal Year (May 2016). This report summarizes the activities and accomplishments of the District during FY15 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 2015 calendar year.*

## *2014-2015 Board of Directors*

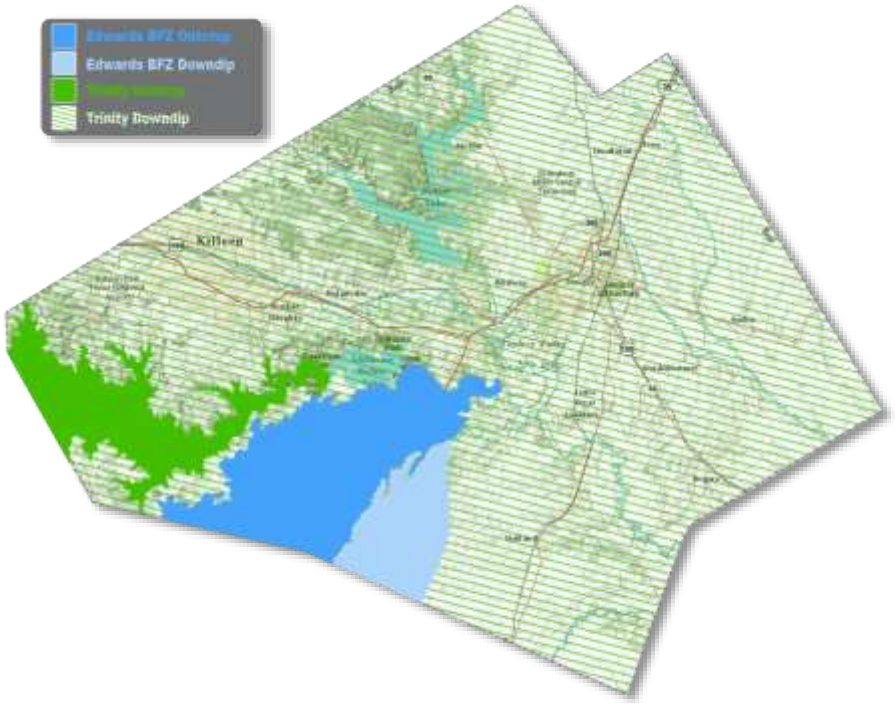
| Leland Gersbach<br>Precinct 1 | Judy Parker<br>Precinct 4 | Gary Young<br>Precinct 2 | Wallace Biskup<br>Precinct 3 | David Cole<br>At-Large |
|---|---|---|---|---|

# 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 FY15; but reflects registration, permitting, and production figures for the calendar year 2015.

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

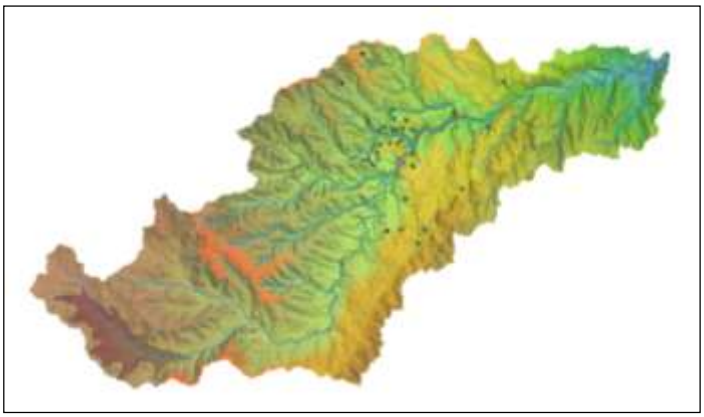
### 1. Technical Consulting Services

**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 both fiscal year FY14 and FY15. 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 2015 updates included a new model of the Salado Creek Watershed and also the addition of new geophysical and well drilling logs from throughout the county. 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.



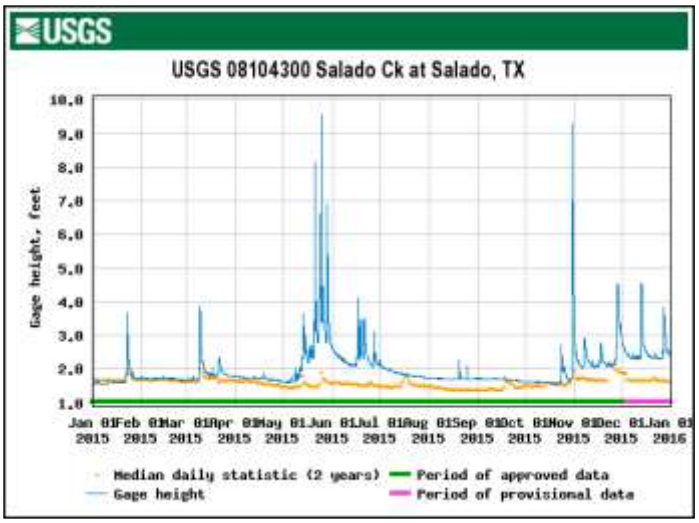
**Salado Creek Watershed from updated Bell County 3D Groundwater Model**

**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 both to staff and the public as well. 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 2015 the District was able to begin online production reporting which has reduced paperwork greatly and is more efficient with time.

**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 2015 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 to the right shows the 2015 stream flow data taken by the gauging system in Salado Creek.




**Baylor University, Department of Geology**

Clearwwater 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 2015 a new project with Baylor began to further understanding of the Hensell formation of the Trinity aquifer and the variations in water quality around the county. Water quality was analyzed around the county and relevant data from drillers reports and surface geology studies were gathered. 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 FY15 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 2015 with the Bell County Commissioners Court, Village of Salado, Salado Water Supply Corporation, Jarrell Schwertner Water Supply Corporation, Texas Home Builders Association, Texas A&M AgriLife Extension Institute of Renewable and Natural Resources, 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  The Stakeholders group collectively contributed $60,000 through FY15 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.

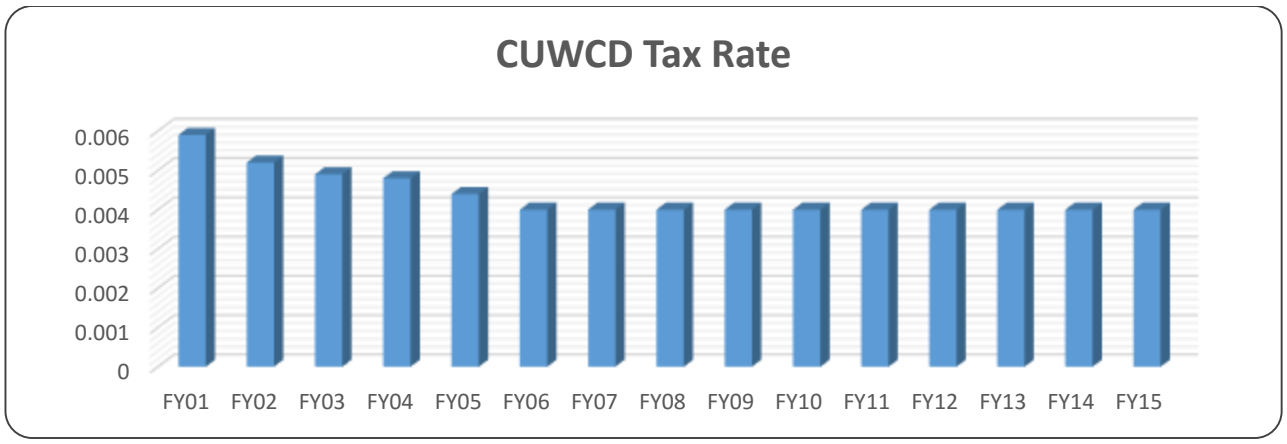
**Alton D. Thiele, P.C.**

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.

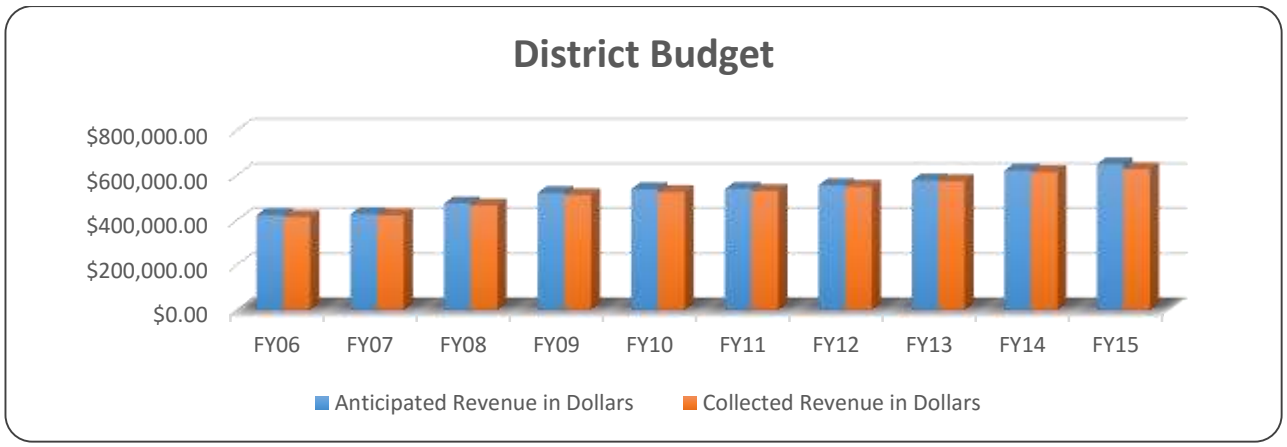
## B. Financial Items

### 1. Budget and Tax Rate

The adopted tax rate for FY15 was $0.0040/$100 valuation, the same rate as the previous 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.  Three workshops (June, July and August) were held in 2015 to develop an operating budget for the upcoming fiscal year (FY16) and to set the corresponding ad valorem tax rate.  The Board voted to lower the tax rate for FY16 to $0.0395/$100 valuation.




The Budget for FY15 was $649,956.00 and ended with the adjusted income of $627,645.69. The total expenditures were $551,695.05 and the district was able to end the year under budget by $75,950.64. The Board prescribed closing the year with $75,950.64 being returned to the Reserve Fund.




*The approved budget for FY15, 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 2015 annual financial audit for the District. The audit began immediately at the closing of FY15 on September 30, 2015 and they concluded their audit and submitted their findings to the District in February 2016.

*See Appendix B for FY15 Financial Audit.*
*Online: http://www.cuwcd.org/public-records/audits/*

## C. Board of Directors

### 1. District Officers

The FY 2015 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.

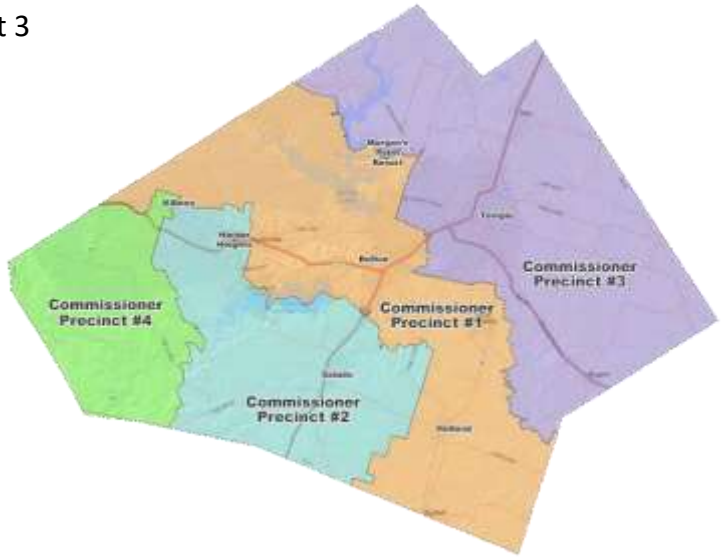
Leland Gersbach, President – Precinct 1

Wallace Biskup, Vice President – Precinct 3

Judy Parker, Secretary – Precinct 4

Gary Young, Director – Precinct 2

David Cole, Director – At Large




### 2. Meetings - FY15 (Oct 2014-Sept 2015)

The Board of Directors held 13 Board meetings and 1 informational meeting in FY15. The Workshops and regular Board meeting agendas included discussion and presentations on the topics listed below.

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

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

### 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.

No PAC meetings were held during FY15. Throughout FY15, 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 will 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 |

## D. 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, 2011. Proposed revisions for the 5 year update to the District Management Plan went through two preliminary reviews by the Texas Water Development Board (TWDB). The revised Management Plan was accepted by the Board following the public hearing on the revised Management Plan, which was held at Tuesday February 8, 2011 meeting. Afterwards, the Board adopted the revised plan. The Management Plan was sent to TWDB for approval prior to the due date, March 6, 2011. The district received approval from TWDB on April 13, 2011.

# 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.

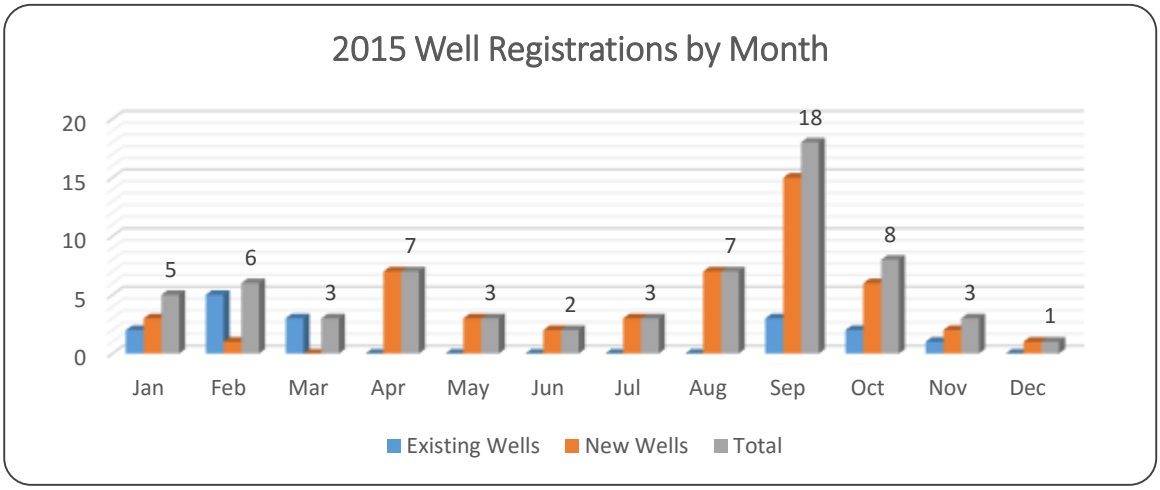
## A. Providing the Most Efficient Use of Groundwater

### 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 2015, 66 wells were registered. The tables below summarize well registration and permitting activity from January 1, 2015 through December 31, 2015.




*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 80 wells registered in 2015, only 11 of those were classified as non-exempt. The Table below summarizes the non-exempt wells or permits that were approved during 2015 and the corresponding permits that were issued where applicable.

**Non-Exempt Permitted Well Registrations for 2014 Calendar Year**

| Well # | Land Owner | Ac-Ft / Year | Aquifer | Use | Permit Type |
|---|---|---|---|---|---|
| N2-14-004P | Central Texas WSC | 726 | Lower Trinity | Public Supply | Operating Permit |

| | | | | | |
|---|---|---|---|---|---|
| N2-15-002P | City of Troy | 250 | Lower Trinity | Public Supply | Drilling Permit |
| N2-15-003P | Roy Zinglemann | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-004P | Scott Law #1 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-005P | Scott Law #2 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-006P | Scott Law #3 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-007P | Scott Law #4 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-008P | Scott Law #5 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-009P | Scott Law #6 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-010P | Scott Law #7 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-011P | Scott Law #8 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |
| N2-15-0012P | Scott Law #9 | 0.60 | Edwards (BFZ) | Domestic | Drilling & Operating |

## 3. Groundwater Database

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

*Objective Satisfied*

**District GIS Database**

The District maintains an online GIS system and works closely with Halff Associates, Inc. to provide web based access to our ever growing database of well information. Every well registered in the District is available in our database with latitude and longitude and 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/

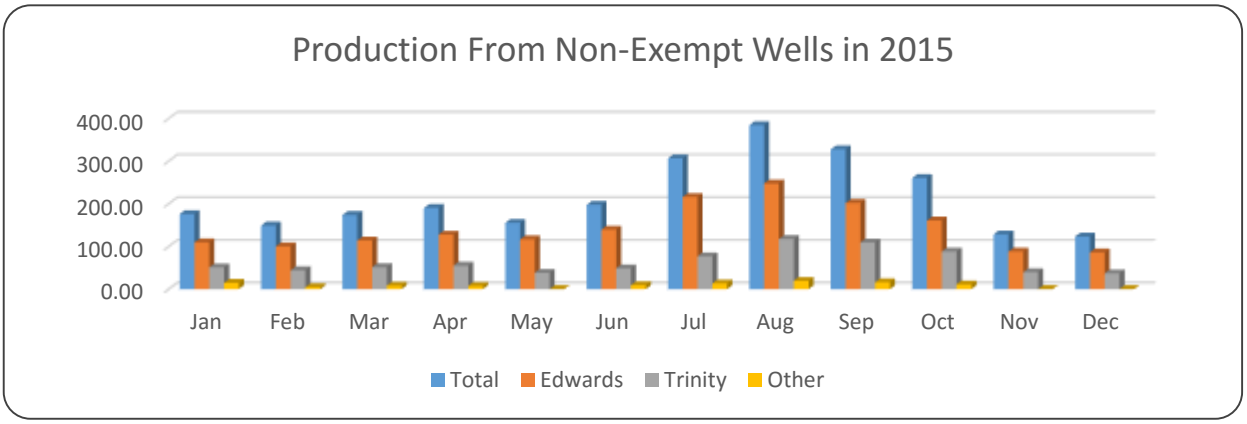
## Non-exempt Well Production

The District continued collecting data from non-exempt wells during 2015. 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 2015, 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.

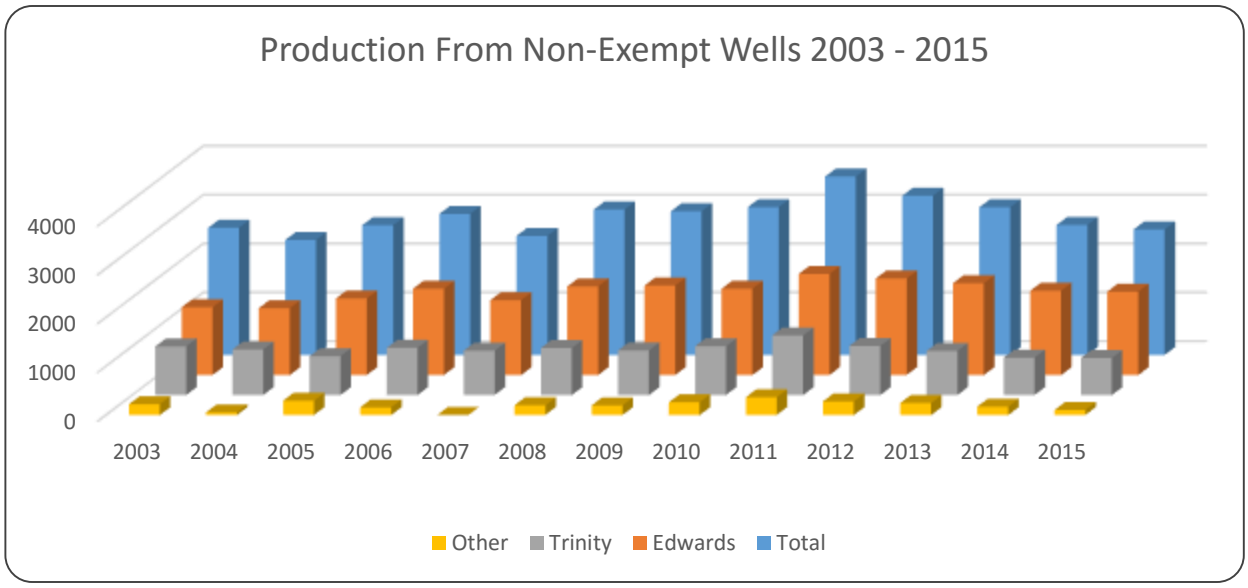
**2015 Permitted Wells**

| | Permitted Ac-Ft | # Wells | Actual Use Ac-Ft | # Wells | % Usage |
|---|---|---|---|---|---|
| Edwards (BFZ) | 2,508.06 | 56 | 1,709.32 | 46 | 68.15% |
| Trinity (total) | 3,492.09 | 51 | 758.6 | 42 | 21.72% |
| Glen Rose | 182.05 | 8 | 84.59 | 5 | 46.47% |
| Hensell | 462.98 | 30 | 54.69 | 21 | 11.81% |
| Hosston | 2,847.06 | 26 | 619.32 | 18 | 21.75% |
| Other Aquifers | 577.54 | 22 | 105.62 | 19 | 18.29% |
| Total | 6,577.69 | 129 | 2,573.54 | 107 | 39.13% |

The following chart shows 2015 production by month and aquifer. Production was at its highest level during the month of August with a monthly withdrawal of 384.48 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 reflect agriculture irrigation necessary at that time of year.



In the following graph, production from 2015 (107 wells) is shown compared to production in years 2003 through 2015. Overall production in 2015 was 2,573.54 ac-ft. This number has been decreasing from the previous years with production from all sources continually declining since the drought of 2011. The Edwards (BFZ) had a total production for 2015 of 1,709.32 ac-ft, total Trinity aquifer production was 758.6 ac-ft, and other formations produced 105.62 ac-ft of water.




*See Appendix D for 2015 Well Production Report*

**Groundwater Transport**

During 2015, five entities in Bell County transported groundwater outside the District. A total transport of 26.78 ac-ft. occurred from the Edwards BFZ aquifer and 110.67 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 total revenue of $1,119.63 for 2015.

| Entity | Aquifer | County | Ac-Ft | Gallons | Fee |
|---|---|---|---|---|---|
| Bell-Milam-Falls WSC | Lower Trinity | Falls, Milam, Williamson | 107.57 | 35,050,400 | $876.26 |
| East Bell WSC | Lower Trinity | Falls | 1.31 | 425,354 | $10.63 |
| Jarrell Schwertner WSC | Edwards (BFZ) | Williamson | 26.78 | 8,725,894 | $218.15 |
| Little Elm Valley WSC | Lower Trinity | Falls | 1.72 | 560,367 | $14.01 |
| O&B WSC | Lower Trinity | Falls | 0.07 | 23,069 | $0.58 |
| | | TOTAL | 137.45 | 44,785,084 | $1,119.63 |

**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 2010-2015**

| Entity | 2015 Loss (% of water) | 2014 Loss (% of water) | 2013 Loss (% of water) | 2012 Loss (% of water) | 2011 Loss (% of water) | 2010 Loss (% of water) |
|---|---|---|---|---|---|---|
| Armstrong WSC. | 15 | 13 | N/R* | N/R* | N/R* | 21.4 |
| Bell Co. WCID #2 | 11 | 9 | 12.54 | 13.80 | 12.60 | 4.56 |
| Bell Co. WCID #5 | 14 | 15 | 9.00 | 12.00 | 13.65 | 10.49 |
| Bell-Milam-Falls WSC. | 26 | 34 | 26.45 | 22.00 | 7.00 | 41.07 |
| City of Troy | N/R* | 24.5 | 33.00 | 8.07 | N/R* | 6.64 |
| East Bell WSC. | 14.64 | 13.71 | 17.04 | 18.00 | 22.01 | 25.17 |
| Jarrell-Schwertner WSC. | 56.45 | 54.25 | 48.72 | 38.00 | 30.20 | 38.41 |
| Little Elm Valley WSC. | 33 | 27 | 23.75 | 21.00 | 22.51 | 18.55 |
| Moffat WSC. | 16 | 6.37 | 4.16 | 6.90 | 5.70 | 3.05 |
| Oenaville/Bellfalls WSC. | 16.6 | 14.47 | 9.64 | 11.46 | 9.97 | 4.92 |
| Pendleton WSC. | 17.23 | 22.73 | 23.18 | 18.00 | 14.78 | 18.02 |
| Salado WSC. | 9.8 | 9.6 | 14.47 | 8.00 | 5.73 | 7.06 |

** 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, 2015. 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.

**2015 Exempt Well Production**

| | Reserved | Estimated Use* | # Wells |
|---|---|---|---|
| Edwards (BFZ) | 825 ac-ft | 438 ac-ft | 731 |
| Trinity | 1,419 ac-ft | 756 ac-ft | 1,275 |
| Other Aquifers | N/A | 924 ac-ft | 1,489 |
| Total | 2,244 ac-ft | 2,119 ac-ft | 3,495 |

** 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 2015 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) | 1,709.32 | 68.15 | 438 | 53.09 | 2,147.32 | 33.19 |
| Trinity | 758.6 | 21.72 | 756 | 53.28 | 1,514.60 | 21.43 |
| Other Aquifers | 105.62 | 18.29 | 924 | N/A | 1,029.62 | N/A |
| Total | 2,573.54 | 39.13 | 2,119 | 53.25 | 4,729.40 | 61.03 |

The chart above shows that overall, exempt wells account for approximately 44.81% of all the groundwater produced in Bell County. In the Trinity, 49.91% of production is attributed to exempt wells; however, in the Edwards BFZ, exempt wells only account for 20.4% of groundwater production, with the vast majority coming from non-exempt wells.

Overall, production from the Edwards BFZ aquifer accounts for 45.41% of total groundwater used in Bell County, with the Trinity aquifer accounting for 32.03%, and other aquifers accounting for 21.77%.

**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 | 298.36 | 3,135.94 |
| Trinity | 7,068 | 1,419 | 5,649 | 1,502.60 | 1,989.49 | 2,156.91 |
| Glen Rose (Upper) | 992 | 693 | 299 | 61.90 | 120.15 | 116.95 |
| Hensell (Middle) | 1,076 | 548 | 528 | 259.30 | 203.68 | 65.02 |
| Hosston (Lower) | 5000 | 178 | 4,822 | 1,181.40 | 1,665.66 | 1,974.94 |

** 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 2014 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 2015 the total number of newsletters printed were 3,350 with over 3,265 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 2015, District staff reached over 3,531 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 FY15, 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.


| | | | |
|---|---|---|---|
| November 5, 2014 | Attended | April 1, 2015 | Attended |
| December 2, 2014 | Attended | June 23, 2015 | Attended |
| January 7, 2015 | Attended | August 5, 2015 | Attended |
| March 4, 2015 | 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 3, 2014 | Attended | May 7, 2015 | Attended |
| March 25, 2015 | Attended | September 2, 2015 | 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 FY15, the staff conducted screening on 22 groundwater samples brought in by well owners. Five samples tested were from the Edwards (BFZ) aquifer, two samples from the Upper Trinity, seven samples from the Middle Trinity, no samples from the Lower Trinity, and eight samples from other formations.

The Districts 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 FY15, 18 samples were sent out for certified testing.

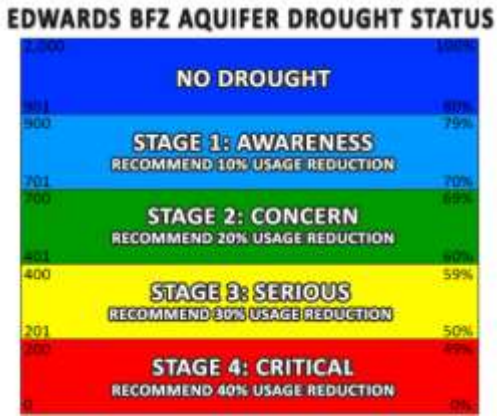
*A summary of the well screening results are shown in Appendix I.*

## E. Addressing Drought Conditions

The District's Management Plan requires that the General Manager, Staff and Board of Directors review the District's drought status on a monthly basis. The decisions to declare drought levels per the Districts Drought Management Plan approved December 17th, 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 |
|---|---|---|---|---|---|
| 10/11/2014 | Stage 2 - Concern | 372.5 | 6.26 | 32.84 | 99.51 |
| 11/19/2014 | Stage 2 - Concern | 282.0 | 4.74 | 30.35 | 91.97 |
| 12/8/2014 | Stage 2 - Concern | 424.0 | 7.12 | 30.49 | 92.38 |
| 2/16/2015 | Stage 1 - Awareness | 1,285 | 21.6 | 33.66 | 102.00 |
| 4/7/2015 | Stage 1 - Awareness | 1,428 | 24 | 35.58 | 107.81 |
| 5/13/2015 | No Drought | 2,070 | 34.8 | 38.60 | 116.95 |
| 6/8/2015 | No Drought | 3,558 | 56.8 | 42.03 | 127.35 |
| 7/15/2015 | No Drought | 2,380 | 40 | 46.20 | 140.00 |
| 8/7/2015 | No Drought | 1,523 | 25.6 | 44.00 | 133.32 |
| 9/3/2015 | No Drought | 1,809 | 30.4 | 44.68 | 135.40 |

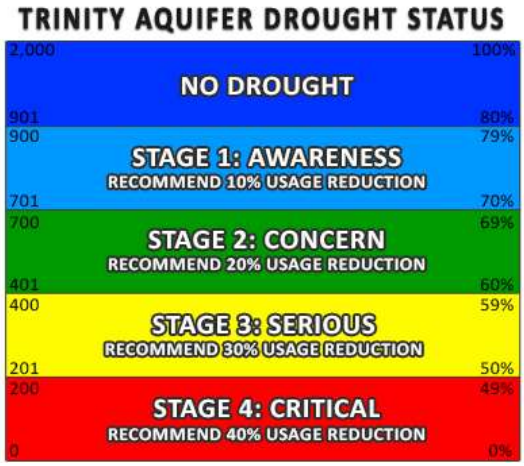
## 2. Monitor Drought Conditions in the Trinity Aquifer

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 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 2015, 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 3,531 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

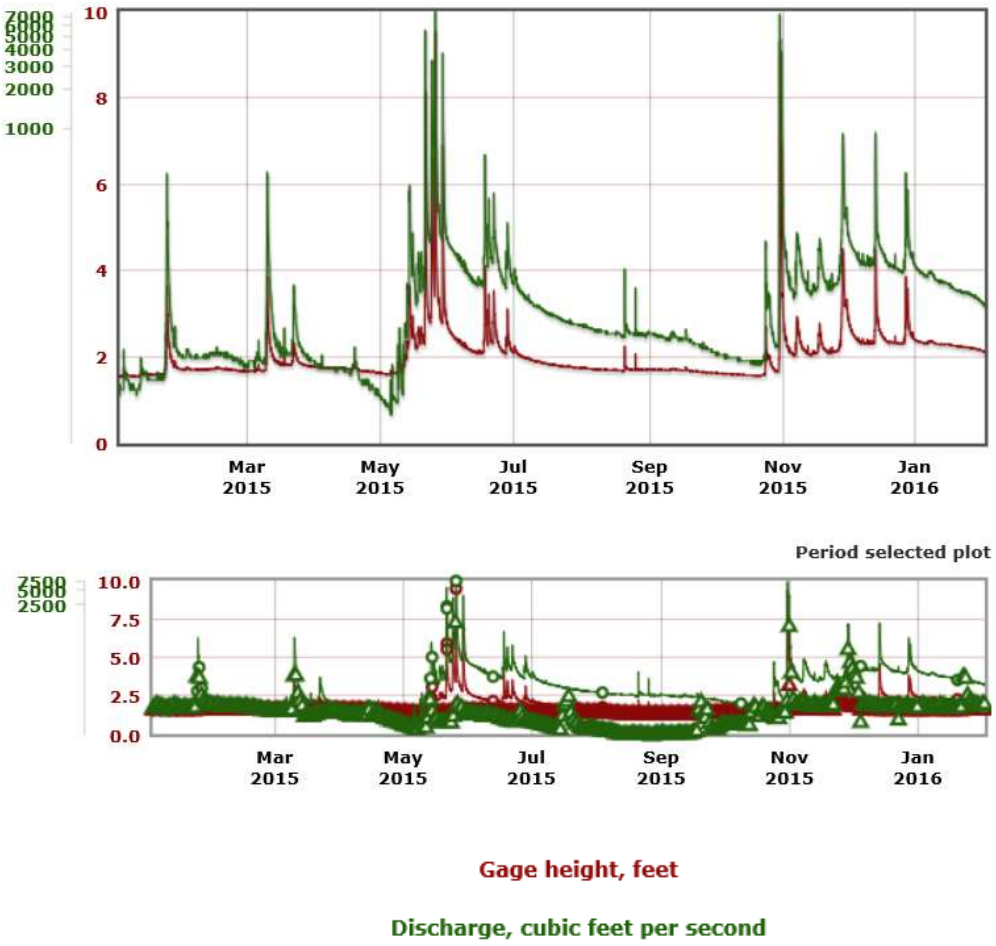
### 1. Salado Springs

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 2015.

**Salado Creek – USGS 08104300**




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. The TWDB typically uses a steel tape or an airline and does not request the pump to be turned off.

The District has been increasing 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.

*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 status report (Appendix F – Trinity Aquifer Status Report 2015) 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 2015.

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 2015 a total of 37 wells were plugged in Bell County.

## B. Bell County Water Symposium

Clearwater sponsored its fourteenth annual water symposium on November 19, 2015 at the Central Texas Council of Governments Building. Event partners included Bell County, HALFF Associates, Lloyd Gosselink Attorneys at Law, and Texas A&M AgriLife Extension-Bell County.

Topics that were discussed:

- Groundwater Management Showcase (Joint Planning, Joint Efforts and Joint Respect) - Central Texas Groundwater Conservation District: Charles Shell, General Manager - Southern Trinity Groundwater Conservation District: Scooter Radcliffe, General Manager - Middle Trinity Groundwater Conservation District: Joe B. Cooper, General Manager - Barton Springs/Edwards Aquifer Conservation District: John Dupnik, General Manager - High Plains Groundwater Conservation District: Kody Bessent, Legislative Director - Clearwater Underground Water Conservation District: Dirk Aaron, General Manager
- "Who are the GCD Across TX and What is their Story?" - Sarah Roundtree Schlessinger, Executive Director, Texas Alliance of Groundwater Conservation Districts
- Groundwater Case Law, Court Decisions, Affirmation of Groundwater Management - Mike Gershon, Attorney, Lloyd Gosselink Rochelle and Townsend
- "Desired Future Conditions" - The Process, The Rules, The Conclusions, Why Science Matters? - Mike Keester, Senior Hydrogeologist, LBG-Guyton Associates
- "Water Supply & Demand" - Trends and Challenges for the Southwest - Dr. Robert Mace, Deputy Executive Director, Texas Water Development Board
- Texas Well Owner Network: Drew Gholson, TWON Coordinator, Texas A&M AgriLife Extension - Middle Trinity Aquifer Investigation: Jim Tucker, Baylor University
- Edwards Aquifer Geo-Chemistry Investigation: Chris Braun, US Geological Survey
- Edwards Aquifer Investigation of Springs and Recharge Features: Stephanie Wong, Baylor University
- Salado Salamander Investigation: Pete Diaz, Texas Fish & Wildlife Conservation Office

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 165 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
- Access to online GIS Maps
- Educational Resources
- Link to TWDB Groundwater Levels

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

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

## 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 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 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 FY15

| | |
|---|---|
| **REVENUE** | |
| Application Fee Income | 20,000.00 |
| Bell CAD Current Year Tax | 623,456.00 |
| Bell CAD Deliquent Tax | 5,000.00 |
| Interest Income | 500.00 |
| Other Income | 0.00 |
| Transport Fee Income | 1,000.00 |
| **Total Income** | **649,956.00** |
| **EXPENDITURES** | |
| **Administrative Expenses** | |
| Audit | 5,000.00 |
| Conferences & Prof Development | 3,000.00 |
| Contingency Fund | 27,426.00 |
| Director Expenses | 7,500.00 |
| Director Fees | 12,000.00 |
| Dues & Memberships | 2,250.00 |
| Election Expense | 4,000.00 |
| GMA 8 Expenses | 15,000.00 |
| Meals | 1,000.00 |
| Mileage Reimbursements | 7,000.00 |
| Travel & Hotel | 3,000.00 |
| **Tota Administrative Expenses** | **87,176.00** |
| **Salary Costs** | |
| Administrative Assistant | 43,000.00 |
| Educational Coord/Support Tech | 43,480.00 |
| Manager | 72,000.00 |
| Part Time/Intern | 15,080.00 |
| Health Insurance | 12,000.00 |
| Payroll Taxes & Work Comp | 17,360.00 |
| Retirement | 7,825.00 |
| Payroll Expenses | 100.00 |
| **Total Salary Costs** | **210,845.00** |
| **Operating Expenses** | |
| Advertisement | 3,500.00 |
| Appraisal District | 7,000.00 |
| Clearwater Studies | 147,650.00 |
| Spring Flow Gage System | 16,000.00 |
| Computer Consulting | 13,300.00 |
| 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 | 61,000.00 |
| 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 | 750.00 |
| **Total Operating Expenses** | **328,250.00** |
| **Facility Costs** | **12,085.00** |
| **Utilities** | **11,600.00** |
| **Total Expense** | **649,956.00** |

***For a detailed copy of the FY15 Budget, Please contact CUWCD at 254-933-0120***

**8/25/14**

# *Appendix B*

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

COMMUNICATIONS WITH THOSE CHARGED WITH GOVERNANCE

SEPTEMBER 30, 2015

*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 8, 2016

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, 2015. 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 June 29, 2015. 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, 2015. 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 8, 2016.

*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. For one issue, we refer to "other control matters for board consideration" discussed in the *Communication of Significant Deficiencies and Material Weaknesses as Required by Statements on Auditing Standards No. 115.*

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

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

SEPTEMBER 30, 2015

*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, 2015, 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.

**Other Control Matters for Board Consideration**

While the following issue(s) did not rise to the level of a material weakness or significant deficiency, the following are issues in standard procedure presented to the Board for approval.

*Cash Overdrawn*

At the fiscal year-end, the primary operating cash account was overdrawn. If at all possible, no cash account, especially an operating checking account should be left with an over-drawn balance at fiscal year-end if there are available cash funds in investment accounts that could be transferred to account for the short-fall of cash.

ALTON D. THIELE, P.C.
Belton, Texas
January 8, 2016

# CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

## BASIC FINANCIAL STATEMENTS AND INDEPENDENT AUDITORS' REPORT

## SEPTEMBER 30, 2015

*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, 2015, 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, 2015, 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 08, 2016, 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.

**Emphasis of Matter**

As described in Note 1.D.5, the District has implemented GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources and Deferred Inflows of Resources, and Net Position* and GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities,* for the year ended September 30, 2015.

**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 08, 2016

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, 2015. 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, | $ 1,043,219 |
| ** Cash and investments, | $ 623,840 |
| ** Deferred Inflows of Resources | $ 21,241 |
| ** The District's liabilities, | $ 23,621 |
| ** Total tax revenues, | $ 609,566 |
| ** Operational expenditures, | $ 574,059 |

## 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

| | 2015 | 2014 |
|---|---|---|
| Current Assets | $ 645,189 | $ 544,940 |
| Capital Assets (Net of Accumulated Depreciation) | 442,892 | 465,256 |
| Deferred Inflows of Resources | (21,241) | (20,564) |
| Liabilities | (23,621) | -0- |
| Net Position: Unreserved | (600,327) | (524,376) |
| Net Investment in Capital Assets | (442,892) | (465,256) |
| Total Net Position | $ (1,043,219) | $ (989,632) |

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

| | 2015 | 2014 |
|---|---|---|
| Tax Revenue | $ 609,566 | $ 583,194 |
| Interest and Other Revenues | 18,080 | 31,695 |
| Expenditures | (574,059) | (569,414) |
| Change in Net Position | $ 53,587 | $ 45,475 |

As shown in the above information, the District improved financially, overall. However, the District's change in net position increased by $ 8,112. In addition to the operational expenditures of $(551,695), the District reported accumulated depreciation of $(22,364) creating a decrease in the net investment in capital assets of $(22,364).

## BUDGETARY HIGHLIGHTS

Actual tax revenues received were less than the budgeted tax revenues by $(22,310) or 3%. However, actual operational expenditures were 12% less than budgeted expenditures. This resulted in an increase in net position of $53,587. 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, new monitor wells were constructed and both office and field equipment was purchased so that at September 30, 2015, the District had a net decrease in Capital Assets of $(22,364). The Net investment in Capital Assets at fiscal year-end was $442,892.

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

## DEBT OUTSTANDING

The District has no long term debt as of the fiscal year ended September 30, 2015.

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

The District's property tax rate for the 2015/2016 fiscal year (FY16) was lowered to $0.00395 per $100 valuation. The estimated taxable property value is 16,526,207,000 for total expected tax revenue of $653,906. Other Income and delinquent property taxes is estimated at $26,500. The District's budgeted expenditures for FY16 are expected to be $680,406 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, 2015

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

**SEPTEMBER 30, 2015**

| | Governmental Funds | | |
|---|---|---|---|
| | General Fund | Adjustments | Statement of Net Position |
| **ASSETS** | | | |
| Cash in Banks | $ - | | $ - |
| Invested Funds | 623,840 | | 623,840 |
| Receivables | | | |
| Taxes | 21,241 | | 21,241 |
| Fees | 108 | | 108 |
| Capital Assets (net of accumulated depreciation) | | | |
| Infrastructure | | 442,892 | 442,892 |
| Total Assets | $ 645,189 | $ 442,892 | $ 1,088,081 |
| **DEFERRED INFLOWS OF RESOURCES** | | | |
| Property Tax Revenue | $ 21,241 | | $ 21,241 |
| **LIABILITIES** | | | |
| Liabilities | | | |
| Cash Overdraft | $ 23,621 | | $ 23,621 |
| Total Liabilities | 23,621 | | 23,621 |
| **FUND EQUITY** | | | |
| Fund Balances | | | |
| Unreserved | 600,327 | (600,327) | - |
| Total Fund Equity | 600,327 | (600,327) | - |
| Total Liabilities and Fund Equity | $ 645,189 | | |
| **NET POSITION** | | | |
| Net Investment in Capital Assets | | 442,892 | 442,892 |
| Unreserved | | 600,327 | 600,327 |
| Total Net Position | | $ 1,043,219 | $ 1,043,219 |

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, 2015

| | | |
|---|---|---|
| Total Fund Balances for Governmental Funds (Page 6) | | $ 600,327 |
| 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 and Easements | $ 442,892 | |
| Total Capital Assets (See p10, Note 1.B.2 and p13 Note 3) | | 442,892 |
| Total Net Position of Governmental Activities (Page 6) | | $ 1,043,219 |

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, 2015

| | Governmental Funds | | |
|---|---|---|---|
| | General Fund | Adjustments | Statement of Activities |
| **EXPENDITURES** | | | |
| Operations | | | |
| Director Fees | $ 12,750 | | $ 12,750 |
| Administrative | 28,340 | | 28,340 |
| Compensation and Benefits | 206,055 | | 206,055 |
| Depreciation | | 22,364 | 22,364 |
| Facilities Costs | 18,998 | | 18,998 |
| Clearwater Studies | 128,517 | | 128,517 |
| Legal and Professional | 73,781 | | 73,781 |
| Collection Fees | 6,914 | | 6,914 |
| Advertising | 1,651 | | 1,651 |
| Other Operating Expenditures | 74,689 | | 74,689 |
| Total Expenditures | 551,695 | 22,364 | 574,059 |
| **REVENUES** | | | |
| General Revenues | | | |
| Property Taxes | 609,566 | | 609,566 |
| Permits, Licenses, and Other Fees | 17,494 | | 17,494 |
| Interest and Other Income | 586 | | 586 |
| Total Revenues | 627,646 | | 627,646 |
| Excess (Deficiency) of Revenues over Expenditures | 75,951 | (22,364) | 53,587 |
| Change in Fund Balance/Net Position | 75,951 | (22,364) | 53,587 |
| **NET POSITION** | | | |
| Beginning of Year | 524,376 | 465,256 | 989,632 |
| End of Year | $ 600,327 | $ 442,892 | $ 1,043,219 |

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, 2015

| | | |
|---|---|---|
| Net Change in Fund Balance - Total Governmental Funds (Page 8) | | $ 75,951 |
| 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: | - | |
| Depreciation expense reported in statement of activities: | (22,364) | |
| Amount by which capital outlays are greater (less) than depreciation in current period: | | (22,364) |
| Change in Net Position of Governmental Activities (Page 8) | | $ 53,587 |

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 implemented 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* for the year ended September 30, 2014. 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 2014 tax roll, was $15,564,029,000. The 2014 tax rate of $0.004 per $100 valuation was assessed and allocated to the General Fund. The resulting tax levy was $ 622,561.

Deferred tax revenue is reported as deferred inflows of resources (Note 1.D.5 para 2) by the District on its Governmental Funds balance sheet under the General Fund and arises when potential revenue does not meet the "measurable" and "available" criteria for recognition in the current period. In subsequent periods, when both revenue recognition criteria are met, the liability for the deferred tax revenue is removed from the balance sheet and the revenue is recognized. The current Deferred Inflow of Resources is $21,241.

## NOTE 3 – CHANGES IN CAPITAL ASSETS

A summary of changes in capital assets is as follows:

| | Primary Government | | | |
|---|---|---|---|---|
| 2015 | Beginning investment | Increase | Retirements | Ending Investment |
| Capital Assets not Depreciated | | | | |
| Land | $ 55,366 | | | $ 55,366 |
| Total not Depreciated Capital Assets | 55,366 | | | 55,366 |
| 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 | (41,001) | (22,364) | | (63,365) |
| Net Investment in Capital Assets | $ 465,256 | $(22,364) | | $ 442,892 |

## NOTE 4 – CASH DEPOSITS AND INVESTMENTS WITH FINANCIAL INSTITUTIONS

The District's checking deposits and Texas Treasury Safekeeping Trust Company (TexPool) investments at September 30, 2015, were fully covered by federal depository insurance and/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, 2015, were as follows:

| | General Fund |
|---|---|
| First State Bank of Central Texas | |
| Operating account* | $ (23,621) |
| TexPool Accounts | |
| LGI Pool | 311,949 |
| Prime | 311,891 |
| Total TexPool accounts | 623,840 |
| Total cash and invested funds | $ 600,219 |

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

(* Note: since this account was overdrawn at the fiscal year-end, the balance is shown on the Governmental Funds balance sheet as a liability not as a negative asset.)

## 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 its deposits at year-end and during the year ended September 30, 2015 were covered by depository insurance or by pledged collateral held by the District's agent bank in the District's name.

*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, 2015, the employer match was $ 7,200.

## NOTE 6 - SUBSEQUENT EVENTS

District management has evaluated subsequent events through January 8, 2016; the date the financial statements were available to be issued. No change to the financial statements for the fiscal year ending September 30, 2015 is deemed necessary as a result of this evaluation.

# *ALTON D. THIELE, P.C.*

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


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

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, 2015, and the related notes to the financial statements, which collectively comprise the basic financial statements, and have issued our report thereon dated January 8, 2016.

**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 8, 2016

# REQUIRED AND OTHER SUPPLEMENTAL INFORMATION

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT

# INDEX OF SUPPLEMENTAL SCHEDULES INCLUDED IN THIS REPORT

SEPTEMBER 30, 2015

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
GOVERNMENTAL FUNDS REVENUES, EXPENDITURES AND CHANGES IN NET POSITION - BUDGET TO ACTUAL
FOR THE YEAR ENDED SEPTEMBER 30, 2015

| | General Fund | | | | VARIANCE |
|---|---|---|---|---|---|
| | ADOPTED BUDGET | AMEND-MENTS | FINAL BUDGET | ACTUAL | Positive (Negative) |
| **REVENUES** | | | | | |
| Property taxes | $ 628,456 | - | $ 628,456 | $ 609,566 | $ (18,890) |
| Application fee | 20,000 | - | 20,000 | 17,000 | (3,000) |
| Transport fee | 1,000 | - | 1,000 | 494 | (506) |
| Interest | 500 | - | 500 | 586 | 86 |
| Other income (expense) | - | - | | | - |
| Total revenues | 649,956 | - | 649,956 | 627,646 | (22,310) |
| **EXPENDITURES** | | | | | |
| Administrative expenses | 87,176 | (15,117) | 72,059 | 46,090 | 25,969 |
| Compensation and benefits | 210,845 | - | 210,845 | 206,055 | 4,790 |
| Clearwater studies | 147,650 | 8,824 | 156,474 | 128,517 | 27,957 |
| Educational outreach/marketing | 14,500 | - | 14,500 | 8,840 | 5,660 |
| Spring flow gage | 16,000 | (550) | 15,450 | 15,450 | - |
| Computer systems | 27,800 | - | 27,800 | 25,048 | 2,752 |
| Legal fees | 61,000 | 1,198 | 62,198 | 61,274 | 924 |
| Reserve for uncollected taxes* | 20,000 | - | 20,000 | - | 20,000 |
| Other operating expenses | 41,300 | 5,676 | 46,976 | 41,424 | 5,552 |
| Depreciation | - | - | - | 22,364 | (22,364) |
| Capital expenditures* | - | - | - | - | - |
| Net loss of capital assets | - | - | - | - | - |
| Facility costs | 12,085 | (31) | 12,054 | 10,730 | 1,324 |
| Utilities | 11,600 | - | 11,600 | 8,267 | 3,333 |
| Total expenditures | 649,956 | - | 649,956 | 574,059 | 75,897 |
| Excess (deficiency) of revenues over expenditures | - | | - | 53,587 | 53,587 |
| Change in net position | | | | 53,587 | |
| **NET POSITION** | | | | | |
| Beginning of fiscal year | | | | 989,632 | |
| End of fiscal year | | | | 1,043,219 | |
| * Budget reserves for balance sheet items | | | | | |
| Reserve for uncollected taxes* | 20,000 | - | 20,000 | 21,241 | (1,241) |
| Capital expenditures* | - | - | - | - | - |

## CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
## SCHEDULE OF GENERAL FUND EXPENDITURES
### FOR THE YEAR ENDED SEPTEMBER 30, 2015

| | | | |
|---|---|---|---|
| Current | | | |
| Compensation and benefits | $ | 206,055 | |
| (Number of persons employed by the District: 2 - Full-time, 1 - Part-time, 1 - Intern) | | | |
| Professional Services | | | |
| Auditing | | 5,000 | |
| Legal | | 68,781 | |
| Clearwater studies | | 128,517 | |
| Utilities | | 8,267 | |
| Facility costs | | 10,731 | |
| Administrative expenses (including director fees) | | 41,090 | |
| Capital outlay | | | |
| Acquisition of capital assets | | - | |
| Net loss of capital assets (theft) | | - | |
| Educational outreach/marketing | | 8,840 | |
| Computer systems | | 25,048 | |
| Other operating expenses | | 49,366 | |
| Other expenditures | | - | |
| TOTAL | $ | 551,695 | (see page 8) |

CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
SCHEDULE OF TEMPORARY INVESTMENTS
FOR THE YEAR ENDED SEPTEMBER 30, 2015

| Governmental Funds | Pool / Type | Interest Rate | Maturity Date | Balance at End of Year |
|---|---|---|---|---|
| **General Fund** | | | | |
| **Local Government Investment Pools** | | | | |
| TexPool | 449 | 0.0281% | Demand | $ 311,949 |
| TexPool - Prime | 590 | 0.0476% | Demand | 311,891 |
| TOTAL | | | | 623,840 |
| **Other accounts** | | | | |
| First State Bank of Central Texas - Operations Account | Transaction | N/A | Demand | - |
| TOTAL | | | | - |
| **TOTAL ALL ACCOUNTS** | | | | $ 623,840 |

## CLEARWATER UNDERGROUND WATER CONSERVATION DISTRICT
## ANALYSIS OF TAXES LEVIED AND RECEIVABLE
### FOR THE YEAR ENDED SEPTEMBER 30, 2015

| | Maintenance Taxes |
|---|---|
| Taxes receivable at October 1, 2014 | $ 20,564 |
| 2014 Original tax roll, net | 610,243 |
| Total to be accounted for | 630,807 |
| Tax Collections: | |
| Current year | (602,514) |
| Prior years | (7,052) |
| Total collections | (609,566) |
| Taxes receivable, September 30, 2015 | $ 21,241 |
| Taxes receivable by years: | |
| 2008 and years prior to | $ 5,135 |
| 2009 | 1,184 |
| 2010 | 1,461 |
| 2011 | 1,656 |
| 2012 | 2,073 |
| 2013 | 3,159 |
| 2014 | 6,573 |
| Taxes receivable, September 30, 2015 | $ 21,241 |

| | 2014 | 2013 | 2012 |
|---|---|---|---|
| Property Valuations | $ 15,564,029,000 | $ 14,848,548,113 | $ 14,184,232,178 |
| Tax rates per $100 valuation: | | | |
| Debt service tax rates | N/A | N/A | N/A |
| Maintenance tax rates | 0.004 | 0.004 | 0.004 |
| Total tax rates per $100 valuation: | 0.004 | 0.004 | 0.004 |
| Gross Original tax levy | $ 622,561 | $ 593,957 | $ 567,384 |
| Percent of taxes collected to taxes levied** | 97.91% | 102.63% | 102.79% |

** 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, 2015

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 09/30/2015 | Expense Reimbursement | Title as of 09/30/2015 | Property owner within the District |
|---|---|---|---|---|---|
| **Board Members** | | | | | |
| Leland Gersbach 7872 Hackberry Holland, TX 76534 | Precinct 1 2012 to 2016 | Waived | - | President | Yes |
| Bill Bartlett 1530 Rose Lane PO Box 183 Salado, TX 76571 | Precinct 2 2014 to Dec, 2015 | $450 | - | Director | Yes |
| Gary Young 1314 Creek View, Salado, TX 76571 | Precinct 2 Dec. 2015 to 2018 | $2,100 | $138 | Director | Yes |
| Wallace Biskup PO Box 265 Troy, TX 76579 | Precinct 3 2012 to 2016 | $2,550 | $138 | Vice President | Yes |
| Judy Parker 1235 River Ridge Ranch Road Killeen, TX | Precinct 4 2014 to 2018 | $4,800 | - | Secretary | Yes |
| David Cole 2401 Brown Circle Killeen, TX 76543 | At-Large 2014 to 2018 | $2,850 | $193 | Director | Yes |
| **Consultants** | | | | | |
| Lloyd Gosselink Attorneys at Law 816 Congress Ave Suite 1900 Austin, TX 78701-4071 | N/A | $68,926 | N/A | Attorney | N/A |
| Alton D Thiele, P.C. P.O. Box 808 Belton, TX 76513 | N/A | $5,000 | N/A | Auditor | N/A |
| **Key Personnel** | | | | | |
| Dirk Aaron | N/A | $72,000 | | District Manager | |
| Shelly Chapman | N/A | $43,000 | | District Administrative Assistant | |
| Todd Strait | N/A | $37,480 | | District Education Coordinator and Support Tech | |

# *Appendix C*

# Well Registration Totals

| Year | Exempt Wells | | Non-Exempt Wells | | | Monitor Wells | | Total |
|---|---|---|---|---|---|---|---|---|
| | Grandfathered | New | Grandfathered | Class 1 | Class 2 | Water | Envr | |
| **2002-2014** | 4060 | 803 | 108 | 17 | 31 | 16 | 35 | **5070** |
| **2015-Jan** | 2 | 3 | 0 | 0 | 0 | 0 | 0 | **5** |
| **Feb** | 5 | 1 | 0 | 0 | 0 | 0 | 0 | **6** |
| **Mar** | 3 | 0 | 0 | 0 | 0 | 0 | 0 | **3** |
| **Apr** | 0 | 7 | 0 | 0 | 0 | 0 | 0 | **7** |
| **May** | 0 | 3 | 0 | 0 | 0 | 0 | 0 | **3** |
| **June** | 0 | 2 | 0 | 0 | 0 | 0 | 0 | **2** |
| **July** | 0 | 3 | 0 | 0 | 0 | 0 | 0 | **3** |
| **Aug** | 0 | 6 | 0 | 0 | 1 | 0 | 0 | **7** |
| **Sept** | 3 | 6 | 0 | 0 | 9 | 0 | 0 | **18** |
| **Oct** | 2 | 5 | 0 | 0 | 1 | 0 | 0 | **8** |
| **Nov** | 1 | 2 | 0 | 0 | 0 | 0 | 0 | **3** |
| **Dec** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| **Total 2015** | **16** | **39** | **0** | **0** | **11** | **0** | **0** | **66** |
| **Totals** | **4076** | **842** | **108** | **17** | **42** | **16** | **35** | **5136** |

# Adjustments

| Adjustment Type | Exempt Wells | | Non-Exempt Wells | | | Monitor Wells | | Total |
|---|---|---|---|---|---|---|---|---|
| | Grandfathered | New | Grandfathered | Class 1 | Class 2 | Water | Envr | |
| **2002-Present** | **4076** | **842** | **108** | **17** | **42** | **16** | **35** | **5136** |
| Never Drilled | N/A | -21 | N/A | 0 | -3 | 0 | 0 | -24 |
| Plugged | -124 | -26 | -13 | -1 | -1 | 0 | -15 | -180 |
| **Totals** | **3952** | **795** | **95** | **16** | **38** | **16** | **20** | **4932** |

# *Appendix D*

## *Non-Exempt Wells--Edwards BFZ*

| | | | Acre-Feet | | | 2015 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 |
| | | **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 | 9,456,185 | 8,282,473 | 9,223,852 | 8,016,810 | 8,071,614 | 7,015,324 | 8,412,820 | 10,303,258 | 10,244,823 | 8,449,422 | 7,475,920 | 7,567,442 | 102,519,943 | 314.63 | 69.27% |
| N2-02-041G | 5804808 | JSWSC (Prairie Dell 2) | | | | 3,691,832 | 3,014,107 | 3,909,964 | 2,808,467 | 2,495,608 | 2,096,415 | 2,977,318 | 3,425,811 | 3,646,834 | 2,155,452 | 2,711,523 | 2,720,295 | **35,653,626** | **109.42** | **24.09%** |
| N2-02-042G | 5804811 | JSWSC (Prairie Dell 5) | | | | 4,175,069 | 3,999,922 | 3,338,678 | 3,575,784 | 4,093,303 | 3,576,905 | 3,818,423 | 4,952,915 | 4,820,186 | 4,237,693 | 3,624,533 | 3,578,278 | **47,791,689** | **146.67** | **32.29%** |
| N2-03-005P | | JSWSC (Prairie Dell 8) | | | | 1,589,284 | 1,268,444 | 1,975,210 | 1,632,559 | 1,482,703 | 1,342,004 | 1,617,079 | 1,924,532 | 1,777,803 | 2,056,277 | 1,139,864 | 1,268,869 | **19,074,628** | **58.54** | **12.89%** |
| | | **Not Aggregated** | 72.00 | 25.01 | 97.01 | 244,444 | 249,626 | 249,806 | 296,127 | 287,340 | 326,001 | 339,710 | 347,397 | 344,743 | 384,013 | 278,271 | 235,134 | 3,582,612 | 10.99 | |
| 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** | 5,373 | 5,635 | 6,497 | 9,008 | 9,600 | 4,622 | 14,164 | 22,522 | 22,439 | 25,863 | 18,066 | 10,610 | **154,399** | **0.47** | **22.71%** |
| N2-11-004P | 5804631 | Charles Broeker | | 0.99 | **0.99** | 0 | 0 | 0 | 0 | 0 | 25,000 | 25,000 | 25,000 | 25,000 | 10,000 | 10,000 | 0 | **120,000** | **0.37** | **37.37%** |
| N1-14-001P | | Duerr, Karen | | 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%** |
| N2-10-007P | | Goode Towing | | 0.05 | **0.05** | 0 | 170 | 70 | 17 | 140 | 80 | 0 | 50 | 140 | 220 | 260 | 290 | **1,437** | **0.00** | **0.00%** |
| N1-07-003P | | Gravette, Ronald | | 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%** |
| N2-11-005P | | James & Terry Boston | | 1.66 | **1.66** | 900 | 600 | 500 | 800 | 900 | 100 | 333 | 333 | 333 | 700 | 750 | 750 | **6,999** | **0.02** | **1.20%** |
| N2-10-002P | | James Construction | | 0.96 | **0.96** | 2,480 | 1,590 | 2,700 | 2,700 | 2,700 | 2,146 | 2,885 | 2,885 | 2,885 | 3,014 | 0 | 0 | **25,985** | **0.08** | **8.33%** |
| N2-08-004P | | Lonnie Sherman | | 1.10 | **1.10** | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | **50** | **0.00** | **0.00%** |
| N2-09-002P | | O. W. Lowery | | 1.84 | **1.84** | 0 | 0 | 9,876 | 14,111 | 989 | 15,322 | 22,182 | 21,754 | 18,332 | 17,222 | 12,349 | 0 | **132,137** | **0.41** | **22.28%** |
| N1-09-004P | | Perez, Domingo | | 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%** |
| N2-07-005G | | RLF Salado Quarries (Office) | | 3.91 | **3.91** | 3,210 | 6,820 | 2,630 | 5,580 | 2,730 | 3,150 | 1,800 | 1,290 | 1,940 | 1,870 | 2,060 | 1,560 | **34,640** | **0.11** | **2.81%** |
| 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** | 15,670 | 18,000 | 10,270 | 47,100 | 53,470 | 58,770 | 56,485 | 56,485 | 54,810 | 106,720 | 15,860 | 2,620 | **496,260** | **1.52** | **81.72%** |
| N1-07-001P | | Schnitker, James | | 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%** |
| 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 Saladc | | 0.86 | **0.86** | 0 | 0 | 452 | 0 | 0 | 0 | 0 | 267 | 2,053 | 1,593 | 2,115 | 2,493 | **8,973** | **0.03** | **3.49%** |
| N1-13-002P | | Stone, Janet | | 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%** |
| N1-10-001P | | Stone, Kenneth | | 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%** |
| N1-07-005P | | Suarez, Patricia | | 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%** |
| | | **Salado WSC** | 1,472.30 | 36.99 | 1,509.29 | 20,960,000 | 18,706,000 | 21,273,000 | 28,077,000 | 23,733,000 | 32,062,000 | 54,234,000 | 63,614,000 | 48,921,000 | 43,222,000 | 20,731,000 | 19,880,000 | 395,413,000 | 1,213.48 | 80.40% |
| N2-02-010G | 5804512 | 7KX Ranch (#8) | | | | 0 | 8,000 | 0 | 0 | 10,000 | 990,000 | 7,308,000 | 11,548,000 | 6,276,000 | 4,052,000 | 3,000 | 0 | **30,195,000** | **92.67** | **6.14%** |
| N2-02-011G | 5804513 | 7KX Ranch (#9) | | | | 5,702,000 | 4,999,000 | 4,702,000 | 5,397,000 | 4,426,000 | 1,495,000 | 0 | 0 | 0 | 0 | 5,239,000 | 5,777,000 | **37,737,000** | **115.81** | **7.67%** |
| N2-02-003G | 5804602 | Salado WSC (#1) | | | | 1,000 | 7,000 | 0 | 0 | 4,000 | 17,000 | 295,000 | 738,000 | 78,000 | 18,000 | 0 | 0 | **1,158,000** | **3.55** | **0.24%** |
| 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) | | | | 0 | 2,000 | 0 | 939,000 | 1,171,000 | 7,998,000 | 10,375,000 | 5,066,000 | 3,268,000 | 2,319,000 | 0 | 4,000 | **31,142,000** | **95.57** | **6.33%** |
| N2-02-006G | 5804621 | Salado WSC (#4) | | | | 0 | 20,000 | 0 | 11,000 | 47,000 | 846,000 | 4,133,000 | 9,990,000 | 7,638,000 | 7,207,000 | 4,695,000 | 8,651,000 | **43,238,000** | **132.69** | **8.79%** |
| N2-02-007G | 5804509 | Salado WSC (#5) | | | | 4,232,000 | 3,319,000 | 3,937,000 | 6,086,000 | 3,958,000 | 6,102,000 | 13,920,000 | 15,481,000 | 15,358,000 | 13,414,000 | 2,054,000 | 3,721,000 | **91,582,000** | **281.06** | **18.62%** |
| N2-02-008G | 5804510 | Salado WSC (#6) | | | | 11,025,000 | 10,306,000 | 12,596,000 | 15,454,000 | 13,446,000 | 14,532,000 | 16,921,000 | 17,309,000 | 15,268,000 | 15,585,000 | 8,740,000 | 1,727,000 | **152,909,000** | **469.26** | **31.09%** |
| N2-02-009G | 5804626 | Salado WSC (#7) | | | | 0 | 45,000 | 38,000 | 190,000 | 671,000 | 82,000 | 1,282,000 | 3,482,000 | 1,035,000 | 627,000 | 0 | 0 | **7,452,000** | **22.87** | **1.52%** |
| | | **Schwertner Farms** | 328.90 | 74.05 | 402.95 | 3,814,277 | 4,458,925 | 5,418,665 | 4,100,790 | 4,551,075 | 4,817,549 | 7,049,978 | 5,997,329 | 6,005,072 | 0 | 0 | 0 | 46,213,660 | 141.81 | 35.19% |
| N2-04-005G | | Schwertner Farms Blackwel | | | | 289,034 | 216,767 | 244,341 | 250,036 | 309,706 | 312,732 | 323,340 | 295,086 | 265,404 | 0 | 0 | 0 | **2,506,446** | **7.69** | **1.91%** |
| N2-04-001G | | Schwertner Farms CCL #1 | | | | 690,082 | 1,023,666 | 1,279,138 | 839,325 | 930,268 | 1,010,205 | 1,347,020 | 1,035,942 | 1,200,751 | 0 | 0 | 0 | **9,356,397** | **28.71** | **7.12%** |
| N2-04-002G | | Schwertner Farms CCL #2 | | | | 690,082 | 1,023,666 | 1,279,138 | 839,325 | 930,268 | 1,010,205 | 1,347,020 | 1,035,942 | 1,200,751 | 0 | 0 | 0 | **9,356,397** | **28.71** | **7.12%** |
| N2-04-003G | | Schwertner Farms CCL #3 | | | | 690,082 | 1,023,666 | 1,279,138 | 839,325 | 930,268 | 1,010,205 | 1,347,020 | 1,035,942 | 1,200,751 | 0 | 0 | 0 | **9,356,397** | **28.71** | **7.12%** |
| N2-04-004G | | Schwertner Farms Eastland W. | | | | 298,542 | 253,232 | 246,500 | 246,500 | 255,068 | 299,897 | 317,594 | 270,929 | 264,792 | 0 | 0 | 0 | **2,453,054** | **7.53** | **1.87%** |
| N2-04-006G | | Schwertner Farms ES #1 | | | | 98,460 | 104,087 | 100,432 | 82,599 | 138,750 | 107,878 | 123,467 | 116,667 | 96,556 | 0 | 0 | 0 | **968,896** | **2.97** | **0.74%** |
| N2-04-007G | | Schwertner Farms ES #2 | | | | 0 | 0 | 0 | 0 | 0 | 0 | 904,247 | 921,179 | 837,148 | 0 | 0 | 0 | **2,662,574** | **8.17** | **2.03%** |
| N2-04-008G | | Schwertner Farms ES #3 | | | | 646,068 | 433,517 | 574,957 | 610,470 | 644,283 | 627,606 | 841,592 | 759,594 | 479,621 | 0 | 0 | 0 | **5,617,708** | **17.24** | **4.28%** |
| N2-10-006P | | Schwertner Farms Little D. | | | | 411,927 | 380,324 | 415,021 | 393,210 | 412,464 | 438,821 | 498,678 | 526,048 | 459,298 | 0 | 0 | 0 | **3,935,791** | **12.08** | **3.00%** |
| | | **Stagecoach Inn** | 35.30 | 7.02 | 42.32 | 348,100 | 421,100 | 463,100 | 478,700 | 609,400 | 439,100 | 354,900 | 410,900 | 348,900 | 430,800 | 243,600 | 381,900 | 4,930,500 | 15.13 | 35.75% |
| N2-02-002G | 5804623 | Stagecoach (deep) | | | | 348,100 | 421,100 | 463,100 | 478,700 | 609,400 | 439,100 | 354,900 | 410,900 | 348,900 | 430,800 | 243,600 | 381,900 | **4,930,500** | **15.13** | **35.75%** |
| 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 | 298.36 | 2,508.06 | 34,825,406 | 32,120,524 | 36,630,823 | 40,971,827 | 37,254,829 | 44,662,374 | 70,393,808 | 80,675,284 | 65,866,938 | 52,488,635 | 28,731,191 | 28,066,876 | 552,688,515 | 1,696.12 | 67.63% |

## *Non-Exempt Wells--Trinity*

| | | | Acre-Feet | | | 2015 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 |
| | | **Armstrong WSC** | **154.90** | **333.00** | **487.90** | **1,402,000** | **1,469,000** | **1,320,000** | **1,605,400** | **1,327,400** | **1,610,700** | **891,100** | **2,676,300** | **3,087,700** | **2,766,080** | **1,680,480** | **883,080** | **20,719,240** | **63.58** | **13.03%** |
| N2-02-024G | 5805202 | Armstrong WSC #1 | | | | 0 | 0 | 0 | 400 | 130,400 | 220,700 | 83,100 | 316,300 | 274,700 | 208,080 | 28,480 | 80 | **1,262,240** | **3.87** | **0.79%** |
| N2-10-001P | | Armstrong WSC #2 | | | | 1,402,000 | 1,469,000 | 1,320,000 | 1,605,000 | 1,197,000 | 1,390,000 | 808,000 | 2,360,000 | 2,813,000 | 2,558,000 | 1,652,000 | 883,000 | **19,457,000** | **59.71** | **12.24%** |
| | | **Bell Milam Falls WSC** | **262.20** | **0.00** | **262.20** | **5,696,100** | **5,233,100** | **6,228,200** | **3,088,600** | **1,829,800** | **2,715,800** | **4,734,900** | **9,338,800** | **8,736,500** | **8,419,700** | **5,528,300** | **2,711,100** | **64,260,900** | **197.21** | **75.21%** |
| N2-02-046G | 5814402 | Bell-Milam-Falls WSC (Bartlett) | | | | 3,274,000 | 2,536,000 | 3,147,000 | 3,045,000 | 1,828,000 | 2,714,000 | 4,211,000 | 5,707,000 | 4,095,000 | 3,627,000 | 2,671,000 | 2,489,000 | **39,344,000** | **120.74** | **46.05%** |
| N2-02-038G | 5806601 | Bell-Milam-Falls WSC (Rogers) | | | | 2,422,100 | 2,697,100 | 3,081,200 | 43,600 | 1,800 | 1,800 | 523,900 | 3,631,800 | 4,641,500 | 4,792,700 | 2,857,300 | 222,100 | **24,916,900** | **76.47** | **29.16%** |
| | | **East Bell WSC** | **69.70** | **114.85** | **184.55** | **376,000** | **395,000** | **521,000** | **471,000** | **405,000** | **554,000** | **832,000** | **3,071,000** | **3,184,000** | **1,905,000** | **284,000** | **649,000** | **12,647,000** | **38.81** | **21.03%** |
| N2-02-034G | 4063501 | East Bell WSC #1 | | | | 45,000 | 89,000 | 135,000 | 137,000 | 138,000 | 137,000 | 211,000 | 2,081,000 | 2,101,000 | 1,086,000 | 193,000 | 82,000 | **6,435,000** | **19.75** | **10.70%** |
| N2-04-010P | 5806301 | East Bell WSC #2 | | | | 331,000 | 306,000 | 386,000 | 334,000 | 267,000 | 417,000 | 621,000 | 990,000 | 1,083,000 | 819,000 | 91,000 | 567,000 | **6,212,000** | **19.06** | **10.33%** |
| | | **Leon River Turkey Farms** | **60.90** | **0.00** | **60.90** | **18,000** | **25,000** | **28,000** | **31,000** | **8,200** | **19,500** | **52,500** | **15,500** | **25,700** | **22,800** | **16,500** | **19,700** | **282,400** | **0.86** | **1.41%** |
| N2-02-045G | 5805403 | Leon River Turkey | | | | 14,000 | 21,000 | 24,000 | 25,000 | 3,500 | 14,000 | 47,000 | 12,000 | 1,200 | 18,000 | 13,000 | 17,000 | **209,700** | **0.64** | **1.05%** |
| N2-02-043G | 4053301 | Leon River Turkey (East) | | | | 3,000 | 3,000 | 3,000 | 4,000 | 3,500 | 4,000 | 4,000 | 2,000 | 3,500 | 3,500 | 2,200 | 1,500 | **37,200** | **0.11** | **0.18%** |
| N2-02-044G | 4053302 | Leon River Turkey (West) | | | | 1,000 | 1,000 | 1,000 | 2,000 | 1,200 | 1,500 | 1,500 | 1,500 | 21,000 | 1,300 | 1,300 | 1,200 | **35,500** | **0.11** | **0.18%** |
| | | **Lhoist** | **40.00** | **0.00** | **40.00** | **396,000** | **360,000** | **405,000** | **378,000** | **378,000** | **369,000** | **414,000** | **378,000** | **396,000** | **396,000** | **342,000** | **414,000** | **4,626,000** | **14.20** | **35.50%** |
| N2-03-002G | 4060101 | LHoist #1 | | | | 396,000 | 360,000 | 396,000 | 378,000 | 378,000 | 360,000 | 414,000 | 378,000 | 396,000 | 396,000 | 342,000 | 414,000 | **4,608,000** | **14.14** | **35.35%** |
| N2-03-003G | | LHoist #2 | | | | 0 | 0 | 9,000 | 0 | 0 | 9,000 | 0 | 0 | 0 | 0 | 0 | 0 | **18,000** | **0.06** | **0.15%** |
| | | **Moffat WSC** | **47.70** | **157.80** | **205.50** | **0** | **0** | **6,000** | **113,000** | **26,000** | **5,000** | **2,123,000** | **4,036,000** | **2,490,000** | **2,320,000** | **459,000** | **52,000** | **11,630,000** | **35.69** | **17.37%** |
| N2-02-022G | 4053406 | Moffat WSC #1 | | | | 0 | 0 | 4,000 | 113,000 | 13,000 | 0 | 2,117,000 | 4,030,000 | 2,484,000 | 2,309,000 | 453,000 | 52,000 | **11,575,000** | **35.52** | **17.28%** |
| N2-08-006P | 4053507 | Moffat WSC #2 | | | | 0 | 0 | 2,000 | 0 | 13,000 | 5,000 | 6,000 | 6,000 | 6,000 | 11,000 | 6,000 | 0 | **55,000** | **0.17** | **0.08%** |
| | | **Not Aggregated** | **791.90** | **1,336.77** | **2,128.67** | **6,210,191** | **5,762,467** | **6,700,015** | **10,674,005** | **5,928,006** | **8,979,081** | **13,150,051** | **17,234,515** | **15,032,311** | **12,075,392** | **3,156,342** | **4,855,179** | **109,757,555** | **336.83** | |
| 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%** |
| N2-07-008G | | Apache Stone | | 11.66 | **11.66** | 81,859 | 58,211 | 58,211 | 70,817 | 70,817 | 43,798 | 76,975 | 76,975 | 44,066 | 44,066 | 0 | 0 | **625,795** | **1.92** | **16.47%** |
| N2-02-001G | 5806102 | Bell Co. WCID #2 | 184.20 | 21.60 | **205.80** | 3,086,000 | 2,269,000 | 2,216,000 | 2,964,000 | 2,550,000 | 2,535,000 | 1,720,000 | 3,125,000 | 3,845,000 | 2,894,000 | 0 | 2,531,000 | **29,735,000** | **91.25** | **44.34%** |
| N2-02-040G | 4062801 | Bell Co. WCID #5 | 20.70 | 8.00 | **28.70** | 315,500 | 393,800 | 216,400 | 434,800 | 263,100 | 371,800 | 354,100 | 751,800 | 553,000 | 192,400 | 211,200 | 376,400 | **4,434,300** | **13.61** | **47.42%** |
| 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 | 0 | 1,014 | 586 | 3,643 | 6,287 | 6,007 | 4,709 | 1,780 | 1,068 | 0 | 0 | **25,094** | **0.08** | **6.15%** |
| 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 #2 | 119.90 | 100.60 | **220.50** | 793,500 | 168,192 | 1,319,300 | 1,100,000 | 1,163,100 | 1,161,100 | 1,414,300 | 1,475,100 | 1,456,300 | 1,488,300 | 1,145,900 | 887,800 | **13,572,892** | **41.65** | **18.89%** |
| N1-08-001P | | Conway, Yong | | 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%** |
| N2-14-004P | | Doc Curb | | 726.00 | **726.00** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0.00** | **0.00%** |
| N1-09-003P | | Gehring, Laurie | | 0.34 | **0.34** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0.00** | **0.00%** |
| N1-08-002P | | Heffington, Larry | | 0.11 | **0.11** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **0** | **0.00** | **0.00%** |
| N2-13-002P | 5806201 | Jack Hilliard Dozer and Materials | | 73.20 | **73.20** | 0 | 0 | 0 | 87,270 | 0 | 54,470 | 0 | 130,840 | 73,010 | 0 | 0 | 0 | **345,590** | **1.06** | **1.45%** |
| N2-10-003P | | James Construction | | 12.28 | **12.28** | 308,475 | 366,950 | 195,950 | 57,875 | 104,125 | 43,350 | 30,825 | 341,800 | 228,250 | 153,700 | 1,300 | 0 | **1,832,600** | **5.62** | **45.77%** |
| N2-07-003G | | Killeen Crushed Stone | | 36.00 | **36.00** | 0 | 604,850 | 604,850 | 0 | 0 | 0 | 640,750 | 640,750 | 1,088,400 | 0 | 0 | 0 | **3,579,600** | **10.99** | **30.53%** |
| N2-08-001P | | Kirby Stone | | 16.03 | **16.03** | 88,000 | 17,000 | 15,000 | 59,000 | 376,000 | 350,000 | 287,270 | 261,400 | 134,000 | 141,600 | 317,000 | 95,162 | **2,141,432** | **6.57** | **40.99%** |
| N1-05-001P | | Kurzyniec, John | | 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%** |
| N2-09-001P | | Langston, Kimberly | | 12.32 | **12.32** | 0 | 0 | 47,000 | 54,000 | 18,000 | 77,000 | 141,000 | 172,000 | 18,360 | 244,910 | 460 | 310 | **773,040** | **2.37** | **19.24%** |
| N2-02-039G | 4054801 | Little Elm Valley WSC | 91.20 | | **91.20** | 1,064,100 | 1,359,500 | 644,600 | 1,553,600 | 1,007,200 | 1,270,700 | 2,343,600 | 3,949,100 | 3,068,700 | 2,539,100 | 907,300 | 648,200 | **20,355,700** | **62.47** | **68.50%** |
| N2-07-006G | | Maxdale Cowboy Church | | 0.16 | **0.16** | 810 | 1,660 | 1,400 | 2,250 | 0 | 780 | 1,410 | 2,260 | 1,050 | 1,380 | 1,423 | 870 | **15,293** | **0.05** | **31.25%** |
| N2-02-014G | | Miller Springs Materials | | 50.00 | **50.00** | 19,800 | 80,867 | 64,131 | 48,815 | 24,603 | 64,502 | 72,833 | 86,922 | 74,990 | 0 | 61,960 | 30,759 | **630,182** | **1.93** | **3.86%** |
| N2-02-017G | 4055701 | Oenaville / Belfalls WSC | 16.20 | 20.79 | **36.99** | 51,500 | 5,600 | 71,800 | 59,500 | 76,100 | 6,100 | 0 | 0 | 0 | 0 | 0 | 49,310 | **319,910** | **0.98** | **2.65%** |
| N2-07-009G | | Parrie Haynes Ranch | | 13.80 | **13.80** | 599 | 1,970 | 2,166 | 20,800 | 87,000 | 40,000 | 40,000 | 27,950 | 25,000 | 39,880 | 7,920 | 12,770 | **306,055** | **0.94** | **6.81%** |
| N2-07-007G | | Patriot Retreat | | 0.01 | **0.01** | 0 | 0 | 20 | 0 | 0 | 30 | 200 | 300 | 250 | 150 | 0 | 0 | **950** | **0.00** | **0.00%** |
| N2-09-005G | | R S Materials Group | | 16.67 | **16.67** | 207,020 | 223,750 | 280,000 | 259,670 | 0 | 0 | 0 | 484,070 | 274,730 | 291,490 | 294,670 | 0 | **2,315,400** | **7.11** | **42.65%** |
| N1-11-002P | | Robertson, Andrew | | 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%** |
| N2-05-004P | | 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** | 180 | 220 | 37 | 145 | 159 | 1,447 | 1,831 | 1,157 | 77 | 2 | 1 | 0 | **5,256** | **0.02** | **0.09%** |
| N1-07-002P | | Smith, Ingo | | 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%** |
| N2-07-011G | 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** | 0 | 0 | 720,000 | 3,600,000 | 0 | 2,700,000 | 5,580,000 | 5,220,000 | 3,780,000 | 3,690,000 | 0 | 0 | **25,290,000** | **77.61** | **63.67%** |
| N2-07-012G | | Temple Park Estates | | 9.50 | **9.50** | 44,590 | 62,740 | 51,780 | 101,570 | 31,650 | 96,030 | 268,260 | 298,940 | 198,990 | 172,950 | 50,750 | 71,240 | **1,449,490** | **4.45** | **46.84%** |
| N2-05-003P | 40589 | Texas Veterans Land Board | | 36.80 | **36.80** | 0 | 0 | 40,458 | 40,458 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **80,916** | **0.25** | **0.68%** |
| N2-11-003G | | UMHB | | 7.50 | **7.50** | 1 | 0 | 2,041 | 8,192 | 2,152 | 5,130 | 14,863 | 18,285 | 6,001 | 26,739 | 1 | 1 | **83,406** | **0.26** | **3.47%** |
| N2-06-008P | | VillasDelSol / John Henderson | | 3.13 | **3.13** | 4,100 | 4,000 | 3,700 | 6,500 | 6,200 | 7,400 | 11,670 | 21,000 | 16,200 | 9,500 | 12,300 | 7,200 | **109,770** | **0.34** | **10.86%** |
| | | **Pendleton WSC** | **75.30** | **47.07** | **122.37** | **3,960,900** | **2,670,700** | **2,905,100** | **3,257,900** | **3,788,200** | **3,068,900** | **3,690,900** | **4,079,500** | **5,619,800** | **3,465,000** | **3,226,400** | **3,392,900** | **43,126,200** | **132.35** | **108.16%** |
| N2-02-047G | 4054401 | Pendleton WSC (#1) | | | | 3,960,900 | 2,670,700 | 2,905,100 | 3,257,900 | 3,788,200 | 3,068,900 | 3,690,900 | 4,079,500 | 3,430,400 | 1,620,400 | 1,511,500 | 1,592,000 | **35,576,400** | **109.18** | **89.22%** |
| N2-02-048G | 4054502 | Pendleton WSC (#2) | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,189,400 | 1,844,600 | 1,714,900 | 1,800,900 | **7,549,800** | **23.17** | **18.93%** |
| **Totals:** | | | **1,502.60** | **1,989.49** | **3,492.09** | **18,059,191** | **15,915,267** | **18,113,315** | **19,618,905** | **13,690,606** | **17,321,981** | **25,888,451** | **40,829,615** | **38,572,011** | **31,369,972** | **14,693,022** | **12,976,959** | **267,049,295** | **819.53** | **23.47%** |

## *Non-Exempt Wells--Other*

| | | | Acre-Feet | | | 2015 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** | **4,838,894** | **1,433,747** | **2,574,226** | **2,443,885** | **0** | **3,030,419** | **4,382,702** | **6,240,054** | **5,278,793** | **3,584,366** | **0** | **0** | **33,807,086** | **103.75** | **64.84%** |
| N2-11-001G | | Bradley B. Ware | | | | 1,173,065 | 847,214 | 1,857,353 | 1,694,427 | 0 | 1,987,694 | 3,046,711 | 3,861,339 | 3,388,855 | 2,215,790 | 0 | 0 | **20,072,448** | **61.60** | **38.50%** |
| N2-11-002G | | Bradley B. Ware | | | | 3,665,829 | 586,533 | 716,873 | 749,458 | 0 | 1,042,725 | 1,335,991 | 2,378,715 | 1,889,938 | 1,368,576 | 0 | 0 | **13,734,638** | **42.15** | **26.34%** |
| | | **Not Aggregated** | **0.00** | **111.90** | **111.90** | **45,732** | **53,740** | **50,946** | **45,838** | **45,107** | **51,620** | **52,140** | **51,464** | **55,172** | **49,040** | **55,918** | **53,795** | **610,512** | **1.88** | |
| N2-07-014P | | Barking Oaks | | 0.62 | **0.62** | 805 | 900 | 850 | 5,321 | 2,000 | 6,019 | 4,213 | 4,927 | 6,135 | 5,213 | 6,121 | 5,898 | **48,402** | **0.15** | **24.19%** |
| N2-08-005G | | Golden / Ling | | 1.07 | **1.07** | 220 | 2,030 | 2,030 | 1,210 | 1,400 | 1,720 | 2,920 | 2,330 | 3,630 | 2,120 | 3,890 | 2,590 | **26,090** | **0.08** | **7.48%** |
| 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** | 14,500 | 11,500 | 17,500 | 8,500 | 11,000 | 12,500 | 14,500 | 13,500 | 14,500 | 10,800 | 14,700 | 14,800 | **158,300** | **0.49** | **7.60%** |
| N1-11-001P | | Rodriquez, Roy | | 0.55 | **0.55** | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | **180,000** | **0.55** | **100.00%** |
| N1-04-001P | | Spinn, Stephen | | 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 | 8,203 | 59 | 0 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | **8,336** | **0.03** | **1.21%** |
| N2-08-007G | | Trio Investments | | 0.18 | **0.18** | 0 | 900 | 300 | 600 | 500 | 1,100 | 300 | 500 | 700 | 700 | 1,000 | 300 | **6,900** | **0.02** | **11.11%** |
| | | **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%** |
| N2-02-028G | | Strasburger Farms (#5) | | | | 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** | **305.74** | **577.54** | **4,884,626** | **1,487,487** | **2,625,172** | **2,489,723** | **45,107** | **3,082,039** | **4,434,842** | **6,291,518** | **5,333,965** | **3,633,406** | **55,918** | **53,795** | **34,417,598** | **105.63** | **18.29%** |

# *Appendix E*

# Clearwater UWCD Summary of Exempt Well Use Through December 2015

| 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) | *619* | *570* | *292,416* | *328* | *49* | *31,360* | *35* | *323,776* | *363* |
| Hosston (Lower Trinity) | *113* | *101* | *51,814* | *58* | *12* | *7,680* | *9* | *59,494* | *67* |
| Trinity (Total) | 1,275 | 1,109 | 568,928 | 637 | 166 | 106,240 | 119 | 675,168 | 756 |
| Edwards BFZ | 731 | 603 | 309,345 | 347 | 128 | 81,920 | 92 | 391,265 | 438 |
| Edwards Equivalent | 394 | 300 | 153,903 | 172 | 94 | 60,160 | 67 | 214,063 | 240 |
| Buda | 40 | 23 | 11,799 | 13 | 17 | 10,880 | 12 | 22,679 | 25 |
| Lake Waco | 9 | 3 | 1,539 | 2 | 6 | 3,840 | 4 | 5,379 | 6 |
| Austin Chalk | 207 | 126 | 64,639 | 72 | 81 | 51,840 | 58 | 116,479 | 130 |
| 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 | 587 | 377 | 193,405 | 217 | 210 | 134,400 | 151 | 327,805 | 367 |
| Other | 1,489 | 1,005 | 515,575 | 578 | 484 | 309,760 | 347 | 825,335 | 924 |
| **CUWCD Total** | **3,495** | **2,717** | **1,393,848** | **1,561** | **778** | **497,920** | **558** | **1,891,768** | **2,119** |

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 2016

| *DFC analysis over time (2000-Present)* | *HEUP and OP Permit Analysis* | *2015 YTD Prod. Jan-Dec* | *Pending Applications* | *Exempt Well Reservations* |
|---|---|---|---|---|
| *Modeled Available Groundwater* | *Relative to the Modeled Available Groundwater* | ***1,709.32 ac-ft 68.15%*** | | |

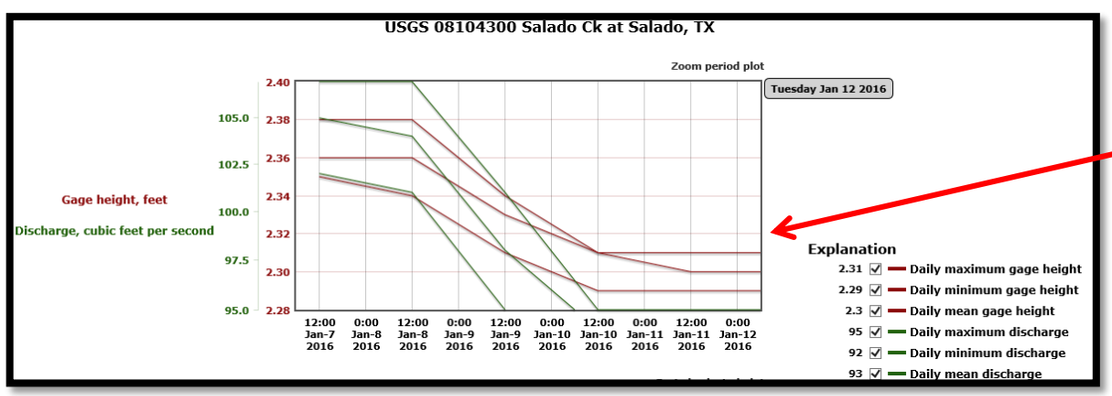
| | ***DFC Adopted** * ***Minimum Spring Flow*** | **Status of DFC** ** Current / Low | **MAG** Ac/ft*** | HEUP ac-ft | OP ac-ft | **Total Permitted ac-ft** | **2014 Actual Production** | **Available for Permitting ac-ft** | ****** Pending Applications ac-ft** | Exempt Well Reservation by layer | Exempt Well Use Estimation | **Available Exempt Use** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Edwards (BFZ) Aquifer** | **100 ac-ft or 1.68 cfs** per month | ***5867 ac-ft*** 01/13/2016 ***220 ac-ft*** *08/20/2014* | 6,469 | 2,209.70 | 293.22 | **2,508.32** | ***1,725.01 ac-ft 68.93%*** | **3,135.68** | | 825 | 385 | 440 |

**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 applications pending at this time.*




*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.*

*Five day average for December 4th – Dec 8th is 95.6 CFS = 5687 ac-ft/month*

*Five day average for January 9th – Dec 13th is 98.6 CFS = 5867 ac-ft/month*

| *DFC analysis over time (2000-Present)* Modeled Available Groundwater | | | *HEUP and OP Permit Analysis* Relative to the Modeled Available Groundwater | | | | | *2015 YTD Prod. Jan-Dec* ***743.19 ac-ft 21.28%*** | *Pending Applications* | | *Exempt Well Reservations* | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Current** | | | | | | | **Available** | Pending | | | |
| **Trinity Aquifer** (by layer) | ***DFC Adopted*** ***Average drawdown*** * (by layer) | **Trend DFC** ** Average Drawdown ft/year | **MAG** Ac/ft*** | | **HEUP Ac/ft** | **OP Ac/ft** | **Total Permitted Ac/ft** (by layer) | **2014 Actual Production By Aquifer Layer** | **for Permitting Ac/ft** (by layer) | Applications Acre ft (by layer) | **Exempt Well Reservation Ac/ft by layer** | **2014 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 | ***0.58 ft*** *2000-15* | 880 | | 61.90 | 120.15 | **182.05** | **74.70** | **4.95** | 0 | **693** | **491** | 202 |
| Hensell (Middle) | ***5.72 ft/yr*** 286 ft/50 yrs | ***0.67 ft*** *2000-15* | 1099 | | 259.30 | 203.68 | **462.98** | **87.08** | **88.02** | 0 | **548** | **386** | 162 |
| Hosston (Lower) | ***6.38 ft/yr*** 319 ft/50 yrs | ***3.67 ft*** *2000-15* | 4993 | | 1181.40 | 1665.66 | **2847.06** | **540.87** | **1997.94** | **** 1945.00 | **178** | **52** | 126 |
| **Total** | | | **7068** | | 1502.60 | 1989.49 | **3492.09** | **702.66 ac-ft (25.40%)** | **2090.91** | **1945.00** | **1419** | **929** | 490 |

**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 -2015 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) of the Trinity Aquifer (1945 acre feet)*

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

# *Appendix G*

Clearwater Underground Water Conservation District www.cuwcd.org

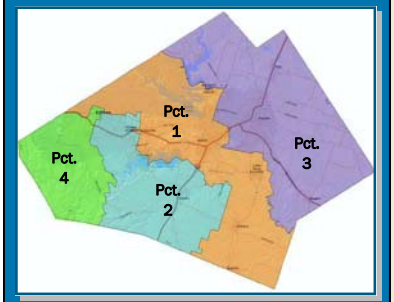
# Clearwater Source

2015 Annual Newsletter | Volume 11, Issue 1 | October, 2015

## In This Issue >>>



## Clearwater Precincts >>>




## DIRECTORS & TERMS:

**Leland Gersbach**—Precinct 1 (President)

**Gary Young**—Precinct 2 (Director)

**Wallace Biskup**—Precinct 3 (Vice President)

**Judy Parker**—Precinct 4 (Secretary)

**David Cole**—At large (Director)

## BELL COUNTY WATER SYMPOSIUM

**November 19, 2015**
**CTCOG Building,**
**2180 N. Main St**
**Belton, Texas**

**Preregistration requested, please call the office now to reserve a seat!**

**Call 254-933-0120**

## A Message From The President

What a year this has been for our water! The year has seen our lake levels close to all-time lows and then in a matter of weeks being 14 feet above normal. We went from a dry first part of the year to have our total annual rainfall by the end of June. Today we have parts of Bell County in the three drought designations of moderate, severe and even extreme in the eastern part of the county. We have a prediction of a strong El Nino meaning a wetter than normal winter. This year has been a classic example of why we should conserve our precious water resources.

This past year has had your Clearwater staff more on a normal schedule. We continue to strive to obtain the science necessary to better understand and manage our two aquifers. The District also has a very aggressive education program to work with area schools to educate our kids on conserving water. We can also provide a program on our District and aquifers to your club or organization, so keep us in mind if you need a very interesting program. Remember also that we provide

*(Continued on page 5)*

## Salado Salamander Update for 2015


Salado Salamander

The Texas Fish and Wildlife Conservation Office (TXFWCO) began monitoring the Salado salamander in February of 2015 to gather data on the distribution of salamanders within the Salado springs complex and on private property of the Robertson estate. While the main focus during this effort is to examine the distribution of salamanders within the spring complex, other tasks accomplished during the surveys include: occupancy estimations within the spring complex, measures of abundance for adults and juveniles, habitat associations within each site, habitat availability per site, contaminants within water, and surface recruitment of salamanders from subterranean environments. Other aspects related to the monitoring include information about the community of aquatic invertebrates within the aquifer.

The TXFWCO has been monitoring all five major springs near downtown and along the edge of Salado Creek, however salamanders have only been documented at two of these springs. Overall, salamanders have been detected at two historical localities (Big Boiling and the Robertson estate) and one new locality for these salamanders, Anderson spring. Finding a salamander at this new locality highlights the connectivity of the springs along Salado Creek. Salamanders found during these surveys (n = 5) have been associated with gravel and cobble type substrates, with filamentous algae or *Ludwigia* sp. (aquatic plant). All salamanders detected during these surveys have been juvenile salamanders (< 25 mm).

***Pete Diaz,*** *Aquatic Biologist and Invertebrate Specialist with Texas Fish and Wildlife Conservation Office*

# CONTRIBUTING TO THE "KNOWNS OF THE NORTHERN SEGMENT": THOUGHTS OF A STUDENT RESEARCHER

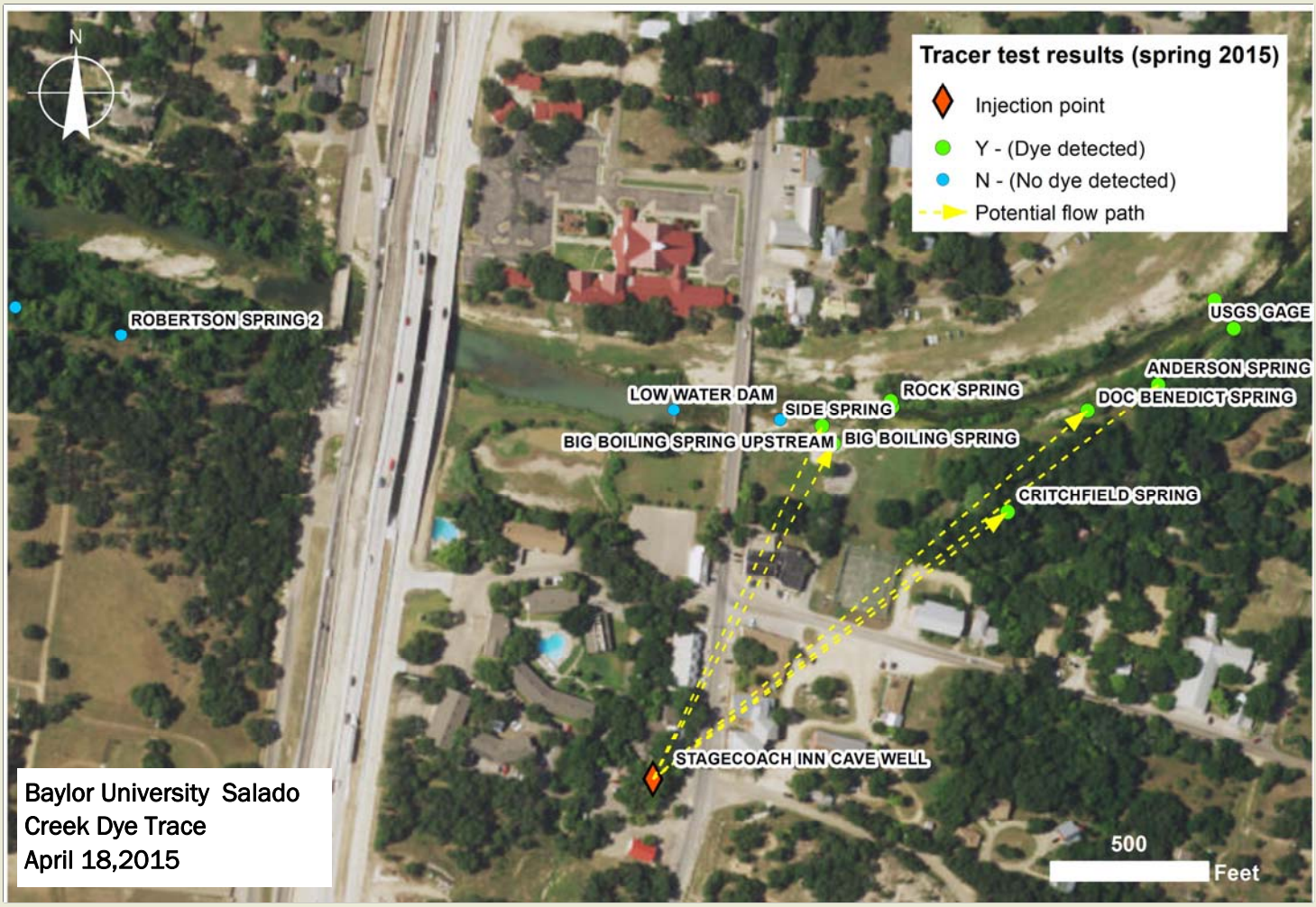
Historically, the Northern segment has been the least well-known part of the Edwards aquifer. Some can even make the case that it still is, compared to the body of research done on the Barton Springs and San Antonio segments. However, with monitoring and research efforts spear-headed by CUWCD and various collaborators, our understanding of the Northern Segment is increasing and improving.

I was first introduced to the Northern segment of the Edwards aquifer on a field trip in 2009 because some biologists were searching for Salado salamanders, tiny amphibians that lived solely in the shallow aquifer around Salado. Four years later, I was given the opportunity to study the Northern segment for my graduate research topic, and this area became my proverbial baby. Since then, the area has endured an Epic drought, gone through a federal listing process for the Salado salamander, and experienced recent spring storms that helped recharge the aquifer and drastically changed the Salado Creek that I have come to know over the last couple of years. This "baby" has certainly shown itself to be both endlessly fascinating and mind-boggling because of its ever-changing and complex nature.

Some highlights of my work with CUWCD include: the installation of equipment to monitor recharge events and groundwater responses to those events; conducting dye trace tests to confirm spring connectivity; and analyzing spring, stream, and well water for chemical constituents. We have been able to note that the aquifer level responds quickly while the chemistry of the water takes more time to change after a rain; confirm connectivity of all the springs in the Salado complex; and characterize properties of spring, stream, and well water in the Northern segment. Much of the data make sense to us, while other data leave us scratching our heads and excited about the prospect of discovering something new about the system. Another aspect that I greatly enjoy is conversing with our collaborators, landowners, and the interested public about what we do and why it's important.

With every field visit we make, every water sample we analyze, and every conversation we have, the Northern segment is becoming more "known". It is an exciting time to be working in the Northern segment of the Edwards aquifer. This research will be presented at the 2015 Bell County Groundwater Symposium.

***Stephanie S. Wong,*** *Doctoral Student, Hydrogeology*
*Baylor University, Department of Geology*



## HYDROLOGIC ASSESSMENT OF THE HENSELL FORMATION

The Hensell Formation, also referred to as the Middle Trinity aquifer is highly valued for its water quality, productivity, and accessibility. The Middle Trinity aquifer is a member of the major aquifer system, the Trinity Aquifer. The focus of my research is a hydrologic assessment of the Hensell Formation to evaluate the aquifer's characteristics: storage, transmissivity, and general water chemistry.

The primary focus of this research analyzes historic water level data to assess (DFCs). This study focuses on areas, where wells are in clusters causing cones of depression. This research is analyzing the zones experiencing the largest water level declines, and making predictions regarding DFCs. Aquifer test simulation software, hydrographs, driller's reports and well logs are being used to calculate the hydraulic conductivity, and storage coefficient. The purpose of calculating these values is to better understand hydraulic properties of the aquifer. The conclusion details recommendations for implementing future management strategies for the Middle Trinity aquifer.

A secondary objective of this study addresses the problem of co-mingling between the brackish Upper Trinity water and freshwater in the Middle Trinity aquifer. By mapping the water chemistry of the study area, this research identifies areas with high concentrations of total dissolved solids (TDS) in the groundwater. Some data have been collected on the groundwater chemistry, but the data are sparse. A synoptic groundwater chemistry map is being constructed to get a snapshot of the regional groundwater quality. This is accomplished by analyzing ionic concentrations, total dissolved solids, pH, and other parameters relating to water chemistry. Problem areas with abnormally high sulfate concentrations, and TDS values are being identified and studied to determine if brackish Upper Trinity water is migrating into the Middle Trinity aquifer below. Additionally, this study looks at the possibility of natural migration pathways between the Upper Trinity and Middle Trinity aquifers. This research will be presented at the 2015 Bell County Groundwater Symposium.

***Jim Tucker*** *– Baylor University M.S. student is researching the Middle Trinity aquifer in Bell and McLennan County.*

Join the District for the 15th Annual

## *Bell County Water Symposium*

***November 19, 2015 8:00 A.M. — 4:00P.M.***

***This event is free but requires RSVP by November 13th.***

### Key Topics and Speakers

**Groundwater Management Showcase (Joint Planning, Joint Efforts and Joint Respect)**

Central Texas Groundwater Conservation District
Southern Trinity Groundwater Conservation District
Middle Trinity Groundwater Conservation District
Barton Springs/Edwards Aquifer Conservation District
High Plains Groundwater Conservation District
Clearwater Underground Water Conservation District

**"Who are the GCD Across TX and What is their Story?"**

Sarah Roundtree Schlessinger, Executive Director
Texas Alliance of Groundwater Conservation Districts

**Groundwater Case Law, Court Decisions, Affirmation of Groundwater Management:**

Mike Gershon, Attorney, Lloyd Gosselink Rochelle and Townsend

**"Desired Future Conditions" - The Process, The Rules, The Conclusions, Why Science Matters?**

Mike Keester, Senior Hydrogeologist, LBG-Guyton Associates

**"Water Supply & Demand"— Trends and Challenges for the Southwest:**

Dr. Robert Mace, Deputy Executive Director, Texas Water Development Board

**Texas Well Owner Network:**

Drew Gholson, TWON Coordinator, Texas A&M AgriLife Extension

**Trinity Aquifer Geo-Chemistry Investigation:**

Chris Braun, US Geological Survey

**Middle Trinity Aquifer Investigation:**

*Jim Tucker, Baylor University*

**Edwards Aquifer Geo-Chemistry Investigation:**

*Chris Braun, US Geological Survey*

**Edwards Aquifer Investigation of Springs and Recharge Features:**

*Stephanie Wong, Baylor University*

**Salado Salamander Investigation:**

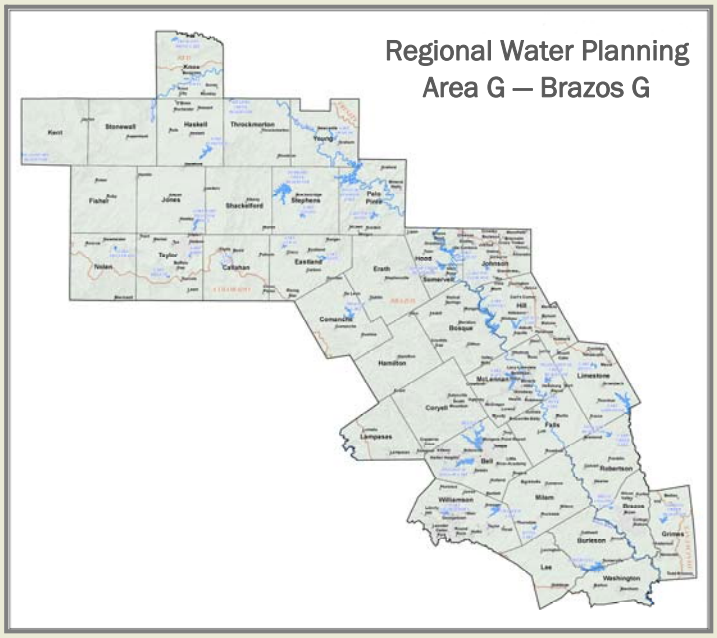
*Pete Diaz, Texas Fish & Wildlife Conservation Office*

Clearwater UWCD
LBG-Guyton Associates
HALFF Associates
Texas Well Owner Network
Lloyd-Gosselink Attorneys at Law
Bell County Engineers Office
Texas AgriLife Extension Service
Baylor University, Geology Dept.

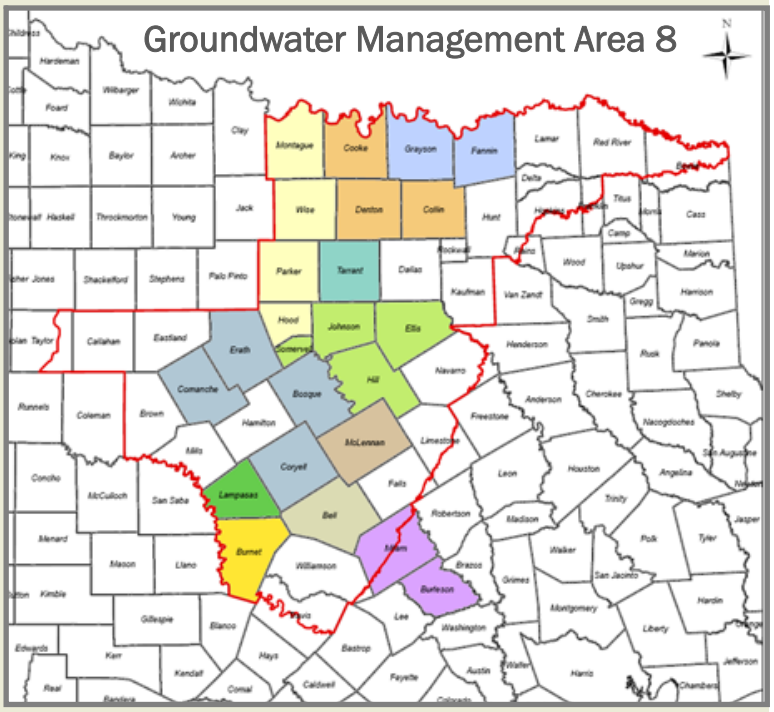
## Managing Our Water

Groundwater Management Area 8 (GMA 8) is a management area created to assist Groundwater Conservation Districts in future planning for groundwater. 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 states objectives.

Region G Planning Group (commonly called Brazos G) stretches from the piney woods of Grimes County in the southeast to the rolling plains of Kent County in the northwest, the Brazos G Regional Water Planning Area includes all or parts of 37 counties. Over 90 percent of the region lies within the Brazos River Basin, with the Brazos River being the region's primary source of water. The largest economic sectors in the region are service, manufacturing, and retail trade. Major cities in the region include Abilene, Bryan, College Station, Killeen, Round Rock, Temple, and Waco.




Counties Represented in both Region G State Water Planning Group that are also in Groundwater Management Area 8 are Bell, Bosque, Comanche, Coryell, Erath, Falls, Hamilton, Hill, Hood, Johnson, Lampasas, Limestone, McLennan, Milam, and Williamson Counties.




## Desired Future Conditions

Desired Future Conditions are defined in Title 31, Part 10, §356.10 (6) of the Texas Administrative Code as "the desired, quantified condition of groundwater resources (such as water levels, spring flows, or volumes) within a management area at one or more specified future times as defined by participating groundwater conservation districts within a groundwater management area as part of the joint planning process." The specified time extends through at least the period that includes the current planning period for the development of regional water plans pursuant to §16.053, Texas Water Code, or in perpetuity, as defined by participating groundwater conservation districts within a groundwater management area as part of the joint planning process. Desired future conditions have to be physically possible, individually and collectively, if different desired future conditions are stated for different geographic areas overlying an aquifer or subdivision of an aquifer.

Why does this matter? Because all groundwater districts, including Clearwater UWCD, must conduct joint planning within each of the 14 management areas to set the DFC every five years. Who pays for the effort to set new DFC's during the five year interval? Those who fund Districts at the local level are the ones paying for it. So, when the legislature is in session and there is a bill proposing significant changes to the DFC process, we watch closely because bills filed often create undue burdens through unfunded mandates to the local tax payers.

Do one thing every day that will save water.

## President's Message (cont.)

(Continued from page 1)

water quality screening on your well at no cost if it is registered with us. All you need to do is provide us a sample-we provide the bottle and instructions on obtaining an accurate sample.

You will be informed at our upcoming water symposium on the science done this year, so plan on attending this free conference that will be held on Thursday, November 19th. We will also be updating the public regarding the Salado Salamander and the new laws and rulings passed by the State and the Courts. Please call our office and make a reservation so we can have an accurate count for lunch. Until then, I'll see you at the water Symposium.

***Leland Gersbach,*** President
Clearwater UWCD

## Well Registration Report

*Well Registration Summary '02 through '15*

| *Period* | *Exempts Wells* | | *Non-Exempt Wells* | | *Total* |
|---|---|---|---|---|---|
| | Existing | New | Existing | New | |
| 2002-2014 | 4,060 | 803 | 108 | 48 | 5,070 |
| 2015 | 10 | 22 | 0 | 4 | 36 |
| Total | 4,070 | 825 | 108 | 52 | 5,106 |

**Non-exempt** wells are capable of producing a large volume of groundwater (over 17 gallons per minute), located on less than 10 acres, or are used for purposes other than Domestic, Livestock, or Poultry. All other wells are "exempt".

## Permitted Well Report

*2015 Well Production*

| *Aquifer* | *Exempts Wells* | | *Non-Exempt Wells* | |
|---|---|---|---|---|
| | Reserved Ac-Ft | Used Ac-Ft | Permits Ac-Ft | YTD Ac-Ft |
| Edwards (BFZ) | 825 | 385 | 2,502.92 | 1,725.01 |
| Trinity | 1,419 | 929 | 2766.09 | 409.46 |
| Other | 749 | 751 | 577.54 | 77.73 |

**What is an acre-foot of water?** The amount of *water* needed to cover an acre one foot deep in *water*. (**325,851.43 gallons**)

## Management Challenges for Single-county Groundwater

Aquifer boundaries usually do not coincide with political boundaries. These conditions mean that single-county groundwater conservation districts (GCDs) like Clearwater Underground Water Conservation District (Clearwater) are hydrologically connected to groundwater in adjoining counties. Neighboring counties may have different management strategies for the same aquifer making it difficult to meet management goals such as Desired Future Conditions (DFCs). All GCDs are part of larger Groundwater Management Areas (GMAs) containing many counties and designed to coincide with major aquifer boundaries. GMAs are intended to provide management solutions for GCDs that manage aquifers across district boundaries. However, minor aquifer boundaries often cross GMA boundaries and the effectiveness of GMAs are often not always adequate.

Essentially there are three strategies single-county GWCDs can employ to preserve and protect their groundwater resources. One strategy is to be politically active. Political activity should include participation in the appropriate GMA and at the State level through the Texas Association of Groundwater Districts (TAGD). Another approach is proactive cooperation with adjacent GCDs. Although this may be possible through the GMA structure, sometimes it can be accomplished more effectively by working directly with an adjacent district with more similar interests. Finally, it is wise to develop monitoring systems and support research activities which can provide data helpful in negotiating decisions across political boundaries.

Clearwater shares the Lower and Middle Trinity aquifers with the Southern Trinity Groundwater Conservation District (Southern Trinity) to the north and shares the Edwards and Trinity aquifers with Williamson County to the south. Southern Trinity is a fellow member of GMA 8 but Williamson County does not have a GCD. Clearwater is politically active in GMA 8, TAGD, and the State legislature. Clearwater has been proactive in cooperative efforts with Southern Trinity exemplified by mutual support for Jim Tucker's research on the Middle Trinity aquifer in both Bell and McLennan counties. Clearwater has an active monitoring program and continues to support important research efforts through Baylor University, the USGS and the USFWS. Clearwater is a strong, single county groundwater conservation district that is currently poised to meet most challenges inherent to managing groundwater at the county level. However, Clearwater must continue its efforts if it is to meet future challenges.

***Joe C. Yelderman Jr.*** *Ph. D., P.G. #2941 – Hydrogeology*
*Professor, Baylor University, advisor to graduate students*
*Jim Tucker and Stephanie Wong.*

## Mission Statement >>>

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

## PUBLIC ADVISORY COMMITTEE

**Tom Madden**—Precinct 1

**Henry Bunke**—Precinct 2

**Marvin Green**—Precinct 3

**Bradley Ware**—Precinct 4

**Bill Schumann** —At Large

## WATER QUALITY

*The District's in house lab offers registered well owners free screening for common constituents and bacteria. Sample bottles are available in our office. Annual screen-*

join our facebook fan page

## E-MAIL CONTACT LIST

*Contact the District office if you would like to be included in our e-mail list for agendas and press releases.*

Clearwater Underground Water Conservation District
Every drop counts!

Clearwater UWCD
P.O. Box 1989
700 Kennedy Court
Belton, TX 76513

Phone: 254-933-0120
Fax: 254-933-8396
www.cuwcd.com

(POSTAGE STAMP)

(NAME)
(STREET)
(CITY)

# THE MANAGER'S COMMENTS

The Clearwater Underground Water Conservation District (CUWCD) was created in 1989 by the 71st Texas Legislature (HB 3172). Although the legislation authorizing the district passed in 1989, the district did not exist until it was confirmed by the voters of Bell County in an election held in August 1999. At that time, voters elected a board of five directors. Directors are elected by county precincts in staggered terms of 4 years. Funding for the district comes from ad valorem taxes at a current rate of $.00395/$100 valuation *($3.95 per year on a home valued at $100,000*). The current board of directors just recently lowered the tax rate. The district has never increased the tax rate since 2002. The message to the citizens in Bell County is that the Board of Directors expect me, as "General Manager" to be *frugal*, *efficient*, and *correct* in administering state groundwater law as we protect the resource and property rights.

The District's jurisdiction includes all of Bell County – approximately 1,055 square miles. There are two major aquifers located within the district, the Edwards (BFZ) Aquifer and the three layers of the Trinity Aquifer (upper, middle and lower). Currently, the District is funding in depth scientific research to understand the hydrogeology that makes the water flow in both of the major aquifer systems in the district. This information will continue to allow the district to make decisions on water availability.

The District is governed by Chapter 36 of the Texas Water Code (TWC). Chapter 36 states that groundwater districts are the preferred method for groundwater management. Chapter 36 gives the District the authority to issue permits and set regulations for managing the underground water resources. From this authority, the District has adopted Rules and Regulations and a Management Plan. The groundwater management system we currently have in most of Texas is a concept created by the legislative body that lays the groundwork for the creation of groundwater conservation districts, a template for management, with limits to a district's authority and is known as "Chapter 36, Texas Water Code".

Chapter 36 of the Texas Water Code can be found on our district website along with our District Management Plan, District Rules, and District By-Laws (http://www.cuwcd.org). Clearwater is a complete open book on our website. Each legislative session since 2001, discussions have occurred and modification to Chapter 36 often happens. The most recent session "84th Texas Legislature in the spring of 2015" was no different. Good common sense prevailed this session, even though we often have found very substantive changes with unfunded mandates.

Positive changes did occur in 2015 and are associated with the appeals process when setting new "desired future conditions (DFC's)" and the reestablishment of new "DFC's" every five years, with permit lengths, permitting process and renewals, as well as "aquifer storage and recovery". The "desired future condition" is a term defined in Texas groundwater law that means a quantitative description, adopted in accordance with Section 36.108, of the desired condition of the groundwater resources in a management area at one or more specified future times. This defines the "management focal point" of all groundwater districts. We have to permit to the DFC so that we can scientifically measure the health of the aquifer and sustain it for future generations. This challenge is not easy when a district must sustain the resource and allow production for beneficial use. It all revolves around science and common sense.

Our hope is that the citizens of Bell County appreciate the elected board of directors at Clearwater UWCD and their desire to protect the resource for future generations and still balance those decisions with property rights of all parties. Production is necessary to meet the current needs and uses by exempt domestic well owners as well as those large volume producers who are subject to the permitting rules and regulations of the district.

*Dirk Aaron,* General Manager
Clearwater UWCD

# *Appendix H*

# *CUWCD 2015 Education and Outreach Events*

| Date | People | Event Information | Presentation | Booth |
|---|---|---|---|---|
| 1/5/15 | 30 | Temple South Rotary Club | X | |
| 1/7/15 | 30 | Temple Rotary Club | X | |
| 1/13/15 | 450 | Texas A&M AgriLife Professional Grounds Keepers & Irrigators Conference | | X |
| 1/20/15 | 150 | Texas A&M AgriLife Crops & Livestock Conference | | X |
| 1/28/15 | 126 | KISD Career Fair | X | |
| 2/25/15 | 32 | 2015 Master Gardener Class | X | |
| 4/13/15 | 13 | Master Naturalist Training | X | |
| 4/16/15 | 650 | Texas Master Gardeners State Conference (3 Days) | | X |
| 4/24/15 | 1,000 | Skipcha Elementary's Earth Day Extravaganza | X | |
| 5/14/15 | 100 | Academy ISD 5$^{th}$ Grade | X | |
| 6/18/15 | 20 | Leadership Central Texas class | X | |
| 6/25/15 | 25 | Salado Area Republican Women's Meeting | X | |
| 7/29/15 | 80 | Military 4-H Annual Water Boot Camp (Ralph Wilson) | X | |
| 8/17/15 | 130 | Military 4-H Annual Water Boot Camp (Fort Hood) | X | |
| 9/23/15 | 45 | Rogers Afterschool Program | X | |
| 10/19/15 | 500 | Annual Bell County Nature Fest | | X |
| 11/19/15 | 150 | Annual Bell County Water Symposium | X | X |
| **Total reach** | **3,531** | | | |

# *Appendix I*

## Results of Groundwater Samples in CUWCD Lab

| Test Date | District Well # | Lattitude | Longitude | Elevation | Depth (ft) | Aquifer[2] | Coliform Bacteria[3] | Fecal Matter | Alkalinity (mg/L) | Conductivity (µs/cm) | Total Dissolved Solids (mg/L) | Fluoride[4] (mg/L) | Hardness (mg/L) | Nitrate (mg/L) | Nitrite (mg/L) | pH | Phosphate (mg/L) | Sulfate[4] (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **FY15** | | | | | | | | | | | | | | | | | | |
| 10/20/2014 | E-08-001P | 30.945502 | -97.346527 | 450.55 | 55 | Alluvium | Absence | Absence | 320 | 593 | 279 | 0.3 | 280 | 5.2 | 0.006 | 7.1 | 0.29 | 10 |
| 10/28/2014 | E-14-039P | 30.966388 | -97.402444 | 550.38 | 830 | Edwards (BFZ) | Not Tested | Not Tested | 340 | 7620 | 4230 | undetermined | 540 | 3.9 | 0.005 | 7.5 | 0.42 | 1520 |
| 11/12/2014 | E-03-334G | 31.054776 | -97.514034 | 736.67 | unk | Edwards Equivalent | Absence | Absence | 320 | 611 | 301 | 0.04 | 320 | 4 | 0.004 | 7.4 | 0.014 | 11 |
| 11/21/2014 | E-04-063P | 31.265555 | -97.403611 | 682.27 | 1050 | Middle Trinity | Not Tested | Not Tested | 380 | 9260 | 4990 | undetermined | 400 | 0.06 | 0.01 | 7.6 | 0.14 | 2880 |
| 11/26/2014 | E-03-431P | 31.017429 | -97.488286 | 555.38 | 100 | Edwards Equivalent | Absence | Absence | - | 525 | 398 | 0.5 | - | 1.13 | 0.5 | - | - | 10.4 |
| 11/26/2014 | E-02-209G | 31.019262 | -97.487824 | 572.26 | unk | Edwards Equivalent | Absence | Absence | - | 525 | 316 | 0.87 | - | 2.4 | 0.1 | - | - | 22.2 |
| 12/12/2014 | E-12-046P | 31.079444 | -97.527777 | 594.79 | 725 | Middle Trinity | Not Tested | Not Tested | 400 | 4030 | 2120 | undetermined | 260 | 0.6 | 0 | 7.6 | 0.11 | 41 |
| 12/9/2014 | E-03-431P | 31.017429 | -97.488286 | 555.38 | 100 | Edwards Equivalent | Absence | Absence | Not tested | 525 | 338 | 0.05 | Not tested | 1.13 | 0.5 | not te | not tested | 10.4 |
| 12/9/2014 | E-02-209G | 31.019262 | -97.487824 | 572.26 | 100 | Edwards Equivalent | Absence | Absence | Not tested | 525 | 316 | 0.087 | Not tested | 2.4 | 0.1 | not te | not tested | 22.2 |
| 1/29/2015 | E-03-037G | 30.96866 | -97.804537 | 843 | 475 | Middle Trinity | Absence | Absence | 380 | 1290 | 651 | undetermined | 200 | 1.3 | 0.001 | 7.5 | 0.06 | 250 |
| 2/9/2015 | E-02-1993P | 30.925401 | -97.606869 | 740.32 | 860 | Middle Trinity | Absence | Absence | 420 | 3110 | 1554 | undetermined | 340 | 0.9 | 0 | 7.6 | 0.11 | 1000 |
| 4/15/2015 | N2-02-043G | 31.231734 | -97.403815 | 694.61 | 1081 | Middle Trinity | Not Tested | Not Tested | 260 | 10940 | 6040 | undetermined | 800 | 0.1 | 0 | 7.8 | 0.38 | 2560 |
| 5/28/2015 | E-02-2208G | 31.003375 | -97.501035 | 580.08 | 107 | Edwards (BFZ) | Presence | Absence | 240 | 548 | 265 | 0.5 | 260 | 1.1 | 0.004 | 7.4 | 0.07 | 9 |
| 5/27/2015 | E-14-039P | 30.966388 | -97.402444 | 550.38 | 830 | Edwards (BFZ) | Not Tested | Not Tested | 360 | 8870 | 4760 | 1.4 | 540 | 0 | 0 | 7.7 | 0.32 | 1640 |
| 5/27/2015 | E-13-044P | 30.943789 | -97.495935 | 626.51 | 320 | Edwards (BFZ) | Not Tested | Not Tested | 340 | 2960 | 1517 | Not Tested | 580 | undetermined | 0 | 7.1 | 0.71 | 420 |
| 5/8/2015 | E-02-072G | 31.064351 | -97.487527 | 665.58 | 700 | Upper Trinity | Absence | Absence | 320 | 939 | 416 | undetermined | 300 | 3 | 0 | 7.3 | 0.4 | 40 |
| 6/3/2015 | N2-07-005G | 30.886049 | -97.70158 | 995.25 | unk | Edwards (BFZ) | Presence | Absence | 240 | 474 | 229 | 0.3 | 180 | 2.8 | 0.003 | 7.5 | 0.11 | 6 |
| 7/30/2015 | N2-07-011G | 30.942527 | -97.537648 | 579.07 | 277 | Upper Trinity | Not Tested | Not Tested | 420 | 5830 | 3060 | 1.8 | 220 | 0 | 0.008 | 8.5 | 0.23 | not tested |
| 7/23/2015 | E-02-1370G | 30.822483 | -97.412222 | 559.33 | 28 | Alluvium | Absence | Absence | 220 | 823 | 404 | 0.5 | 200 | 5.6 | 0 | 7.3 | 6.2 | 18 |
| 8/5/2015 | E-04-063P | 31.265555 | -97.403611 | 682.27 | 1050 | Middle Trinity | Not Tested | Not Tested | 420 | 9040 | 4880 | undetermined | 520 | 1.4 | 0.001 | 7.7 | 0.15 | 2400 |
| 8/4/2015 | E-06-059P | 31.206074 | -97.394972 | 674.48 | 1080 | Middle Trinity | Not Tested | Not Tested | 600 | 6480 | 3430 | undetermined | 340 | 0 | 0.006 | 7.7 | 0.16 | 1020 |
| 8/25/2015 | E-02-1370G | 30.822483 | -97.412222 | 559.33 | 28 | Alluvium | Presence | Presence | 320 | 1094 | 541 | 0.06 | 360 | 6.9 | 0.17 | 7.4 | 0.19 | 45 |

# *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**.

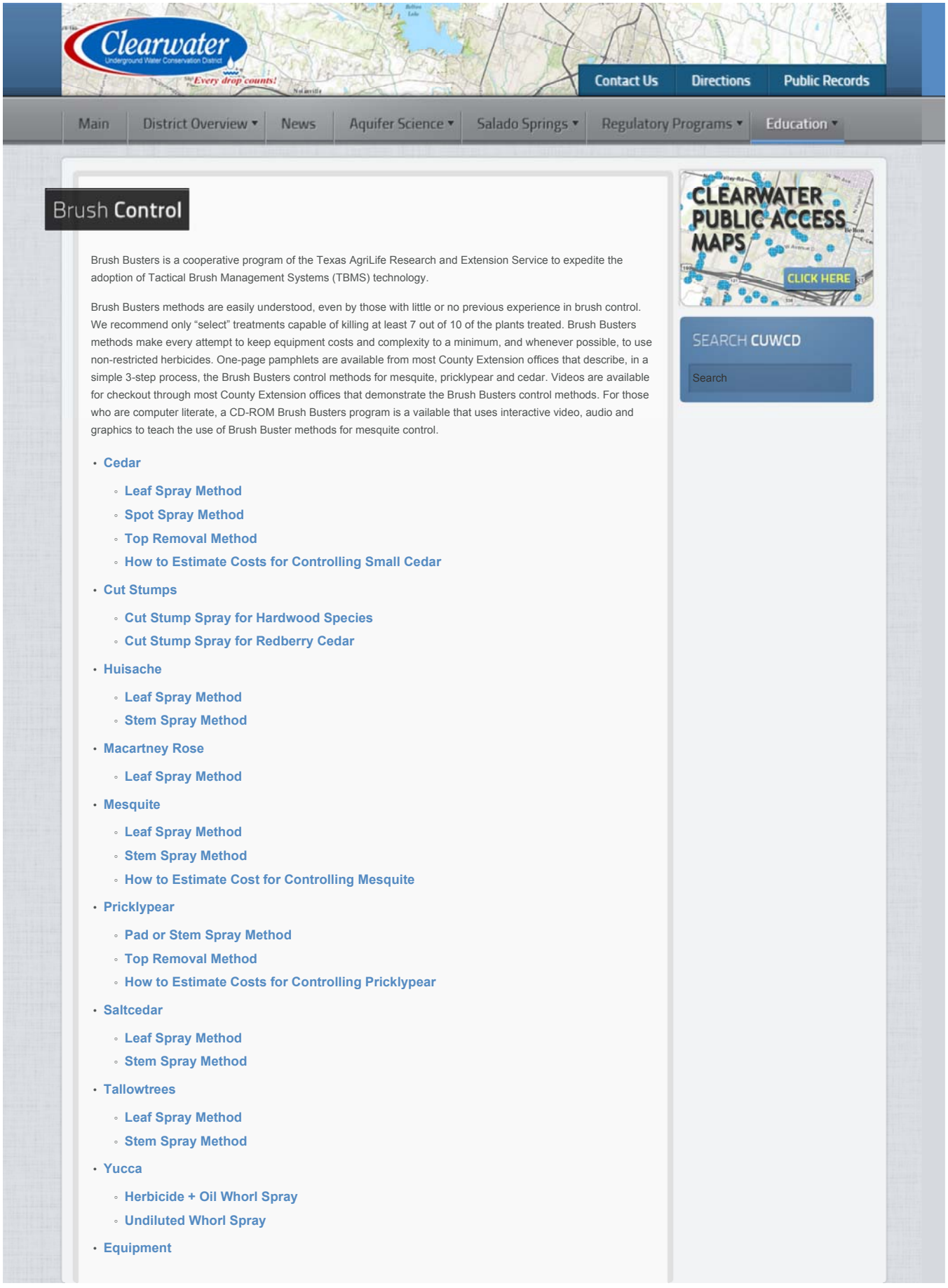
## Related Resources


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


SEARCH CUWCD

Search

# *Appendix K*


Clearwater
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
CLICK HERE
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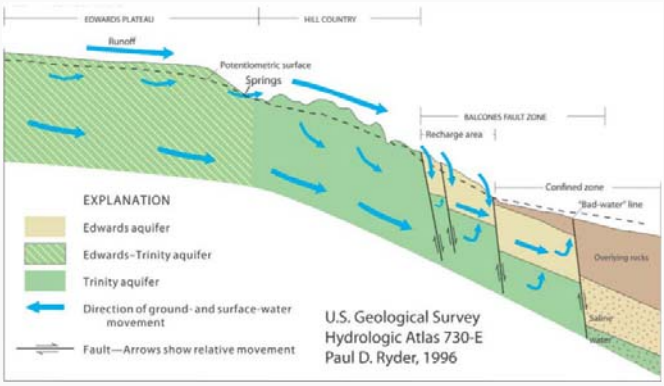
Search

# *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**

**Urban-Enhanced Groundwater Recharge**

**Appendix C Technical Evaluation Procedures for Edwards Aquifer Recharge Enhancement**

**Fact Sheet 4C.4 Edwards Recharge (L-18a)**

**Fact Sheet 4C.4 Edwards Recharge (L-18c)**


SEARCH CUWCD

Search

# *Appendix M*

# *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 | -306.15 | -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 | | | | | | | | | | |
| Since Last | 12.34 | 11.46 | 3.70 | 0.71 | 0.00 | 0.00 | | | 0.00 | | | | | |
| Historic | -13.40 | -14.02 | 29.60 | 4.87 | | | | | | | | | | |

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** **-0.58 ft/yr**
Drawdown of Water Level
Increase of Water Level

# *Clearwater UWCD - Middle Trinity Monitor Wells*

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

| State # | 58-04-104 | 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 | 58-04-407 | 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-02-1407G | E-02-1406G | M-14-002P | N2-11-003G | N2-04-001P | N2-08-002P | E-14.053P | E-07-001P |
| Well Name | Stephenson | Tex Vet | Crushed Stone | Holland | Copperas Cove | River Ridge | Christian | Stillman | Murphy | H.Spring Park | Reavis | H. Springs | Gault Site #2 | UMHB | Strike Zone | Salado ISD | Pedigo | Brooks |
| Highest | -369.54 | -361.40 | -344.42 | 1.20 | -295.47 | -219.33 | -557.40 | -467.50 | -282.63 | -323.35 | -388.60 | -385.00 | -630.00 | -315.10 | -323.20 | -320.80 | -413.60 | -660.20 |
| Lowest | -433.63 | -442.33 | -451.20 | -56.00 | -319.94 | -344.72 | -586.40 | -482.40 | -417.44 | -364.65 | -426.40 | -422.60 | -655.90 | -328.10 | -334.70 | -339.30 | -438.00 | -679.60 |
| Jan-06 | | | | -25.96 | | | | | | | | | | | | | | |
| Jul-06 | | | | -28.30 | | | | | | | | | | | | | | |
| Sep-06 | | | | -27.96 | | | | | | | | | | | | | | |
| Oct-06 | | | | -21.46 | | | | | | | | | | | | | | |
| Nov-06 | | -399.41 | | -27.13 | | -219.33 | | | -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 | -426.40 | -422.60 | | | | | | |
| Nov-13 | -422.78 | -371.13 | -432.18 | -51.30 | -314.73 | -326.88 | -574.40 | -475.00 | -386.24 | -336.35 | -396.10 | -392.20 | | | | | | |
| Feb-14 | -417.18 | -370.23 | -439.28 | -51.30 | -311.78 | -321.88 | -567.80 | -467.50 | -374.84 | -323.35 | -388.80 | -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 | -407.80 | -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 | -415.40 | -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 | -417.40 | -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 | -390.80 | -387.20 | -648.91 | -319.70 | -329.00 | -321.80 | -414.60 | -666.20 |
| Jun-15 | -416.58 | -372.83 | -428.68 | -36.80 | -307.36 | -321.68 | -565.30 | -467.90 | -377.24 | -324.45 | -388.60 | -385.30 | -630.83 | -315.10 | -326.40 | -320.80 | -413.60 | -660.20 |
| Sep-15 | -430.10 | -377.37 | -451.20 | -35.90 | -314.51 | -343.02 | -584.80 | -481.30 | -411.66 | -352.65 | -416.70 | -412.70 | -652.11 | -328.10 | -333.20 | -337.60 | -438.00 | -679.60 |
| Nov-15 | -424.68 | -373.63 | -436.58 | -23.20 | -313.26 | -334.48 | -573.10 | -475.60 | -378.34 | -327.65 | -392.20 | -388.60 | -642.10 | -315.10 | -323.20 | -326.20 | -430.37 | -664.80 |
| Since Last | 5.42 | 3.74 | 14.62 | 12.70 | 1.25 | 8.54 | 11.70 | 5.70 | 33.32 | 25.00 | 24.50 | 24.10 | 10.01 | 13.00 | 10.00 | 11.40 | 7.63 | 14.80 |
| Historic | -55.14 | 25.78 | -92.16 | -24.40 | -6.32 | -115.15 | -15.70 | 3.40 | -64.51 | 37.00 | 34.20 | 34.00 | -12.10 | 13.00 | 11.50 | 13.10 | -15.77 | 14.20 |

E-line Measuren
Sonic Measurem
TWDB Measurer
Air line Measure
No Reading Avai

*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.***

Minimum Number of Measurements: 5

**Average Drawdown** **-0.67 ft/yr**

Drawdown of Water Level
Increase of Water Level

# *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 | -327.70 | -136.13 | -259.00 | -31.00 | 0.00 | 0.00 |
| Lowest | -482.31 | -491.10 | -275.00 | -378.00 | -297.43 | -182.10 | -248.80 | -331.00 | -382.00 | -469.26 | -241.60 | 0.00 | 0.00 |
| 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 | | | |
| Since Last | 5.29 | -478.30 | 0.00 | 3.00 | -0.15 | 0.00 | 0.00 | -329.83 | 0.00 | 0.00 | 241.10 | 0.00 | 0.00 |
| Historical | -132.39 | 7.40 | 230.00 | -14.00 | -3.95 | 175.41 | 247.90 | 0.00 | 136.13 | 259.00 | 31.00 | | |

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

*The desired future conditions established by Clearwater Underground Water Conservation District for the Lower Trinity is no more than 319 feet of drawdown after 50 years.*
***The average drawdown goal per year is -6.38 feet.***

Minimum Number of Measurements: 3

**Average Drawdown** **-3.67 ft/yr**
Drawdown of Water Level
Increase of Water Level

# 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 |
| 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 |
| Highest | -40.13 | -36.17 | -38.52 | -67.67 | -23.87 | -16.17 | -69.82 | -118.18 | -60.00 | -31.00 | -68.70 | -53.32 | -52.30 |
| 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 | -56.20 |
| 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 |
| 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 |
| 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 |
| Since Last | -5.70 | 1.55 | -12.05 | -4.46 | -0.70 | -54.12 | 0.27 | -1.09 | -8.10 | -6.52 | -5.80 | -4.94 | -2.90 |
| Historic | -19.88 | -5.88 | -0.07 | 4.51 | 1.60 | -5.64 | -1.70 | 2.04 | -10.85 | -10.92 | 0.10 | 0.84 | -3.50 |

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** **0.19 ft/yr**

Drawdown of Water Level

Increase of Water Level

# *Appendix N*

15th Annual

# Bell County Water Symposium

## "Showcasing Groundwater Management, Science & Education"

## November 19, 2015

## 8:00 a.m.—4:30 p.m.

**Location: Central Texas Council of Governments, 2180 N Main, Belton, TX**

## AGENDA

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

**8:10 a.m.** **Welcome & Introduction & Theme of the Day**
*Leland Gersbach, Board President, Clearwater UWCD*

**8:20a.m.** **Groundwater Management Showcase (Joint Planning, Joint Efforts and Joint Respect)**
*Central Texas Groundwater Conservation District:* *Charles Shell, General Manager*
*Southern Trinity Groundwater Conservation District:* *Scooter Radcliffe, General Manager*
*Middle Trinity Groundwater Conservation District:* *Joe B. Cooper, General Manager*

**9:30** **10 Minute Break**

**9:40** **"Continue" Groundwater Management Showcase (Joint Planning, Joint Efforts and Joint Respect)**
*Barton Springs/Edwards Aquifer Conservation District:* *John Dupnik, General Manager*
*High Plains Groundwater Conservation District:* *Kody Bessent, Legislative Director*
*Clearwater Underground Water Conservation District:* *Dirk Aaron, General Manager*

**11:00 a.m.** **"Who are the GCD Across TX and What is their Story?"**
*Sarah Roundtree Schlessinger, Executive Director*
*Texas Alliance of Groundwater Conservation Districts*

**11:20 a.m.** **Groundwater Case Law, Court Decisions, Affirmation of Groundwater Management**
*Mike Gershon, Attorney, Lloyd Gosselink Rochelle and Townsend*

**11:40 a.m.** **"Desired Future Conditions" - The Process, The Rules, The Conclusions, Why Science Matters?**
*Mike Keester, Senior Hydrogeologist, LBG-Guyton Associates*

**12:00** **Lunch** **(Noon-Keynote Address)**
**"Water Supply & Demand"— Trends and Challenges for the Southwest**
*Dr. Robert Mace, Deputy Executive Director, Texas Water Development Board*

**1:00 p.m.** **Texas Well Owner Network:** *Drew Gholson, TWON Coordinator, Texas A&M AgriLife Extension*
**1:30 p.m.** **Middle Trinity Aquifer Investigation:** *Jim Tucker, Baylor University*
**2:00 p.m.** **Edwards Aquifer Geo-Chemistry Investigation:** *Chris Braun, US Geological Survey*

**2:30 p.m.** **Break**

**2:45 p.m.** **Edwards Aquifer Investigation of Springs and Recharge Features:** *Stephanie Wong, Baylor University*
**3:15 p.m.** **Salado Salamander Investigation:** *Pete Diaz, Texas Fish & Wildlife Conservation Office*
**3:30 p.m.** **Evaluation:** *Heidi Prude, Natural Resource Extension Agent , Texas A&M AgriLife Extension*
**4:00 p.m.** **Adjourn**

## 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**