

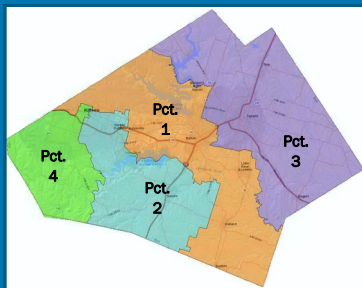
Clearwater Source

2014 Annual Newsletter | Volume 10, Issue 1 | October, 2014

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Clearwater Precincts >>>



DIRECTORS & TERMS:

Leland Gersbach—Precinct 1
2013-2016 (President)

Bill Bartlett—Precinct 2
2011-2014 (Director)

Wallace Biskup—Precinct
2013-2016 (Vice President)

Judy Parker—Precinct 4
2011-2014 (Secretary)

David Cole—At large
2013-2014 (Director)

BELL COUNTY WATER SYMPOSIUM

November 18, 2014
CTCOG Building,
2180 N. Main St
Belton, Texas

Preregistration request-
ed, please call the office
now to reserve a seat!

Call 254-933-0120

A MESSAGE FROM THE PRESIDENT

The last six months have seen your District continue to obtain information to manage our underground water. While Bell County has received timely rains for our farmers to produce above average crops, we have still not had enough to fill our aquifers, local lakes, and ponds. The rains have been very spotty where some areas of the county are in good shape and other areas are still lacking. The problem with a drought is that you never know when you are entering into one or getting out of one. Only time will tell. It is reported that we may be entering a slight El Nino which should give us an above normal winter rainfall. Even with the additional rainfall, we are continuing to see our aquifers decline, more in some areas than others which causes us concern. The District has drilled some new site specific monitor wells in these identified areas to help us better monitor the drawdown and to help us determine if there is a specific reason. We have also been blessed by citizens and municipalities who have let us use the wells on their property to help monitor

these water levels and draw downs. To these citizens, we say thank you since you are giving us needed access to science and saving the District much needed funds to do additional needed research projects.



The District has again entered into contracts with Baylor University and the U.S.G.S. to perform specific projects to help us understand the aquifers and their recharge. Some of this science will assist us in providing additional information to the U.S. Fish and Wildlife Service for the continued monitoring of the Salado Salamander which was listed as "threatened" during 2014. We will continue to obtain the science needed to better understand the aquifers that are under our county as our budget allows. We have also had our hydrogeologist build the District a 3-D model of the aquifers from well data in our

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PRELIMINARY REPORT SHOWS "MIDDLE TRINITY AQUIFER WATER LEVEL CONCERN"

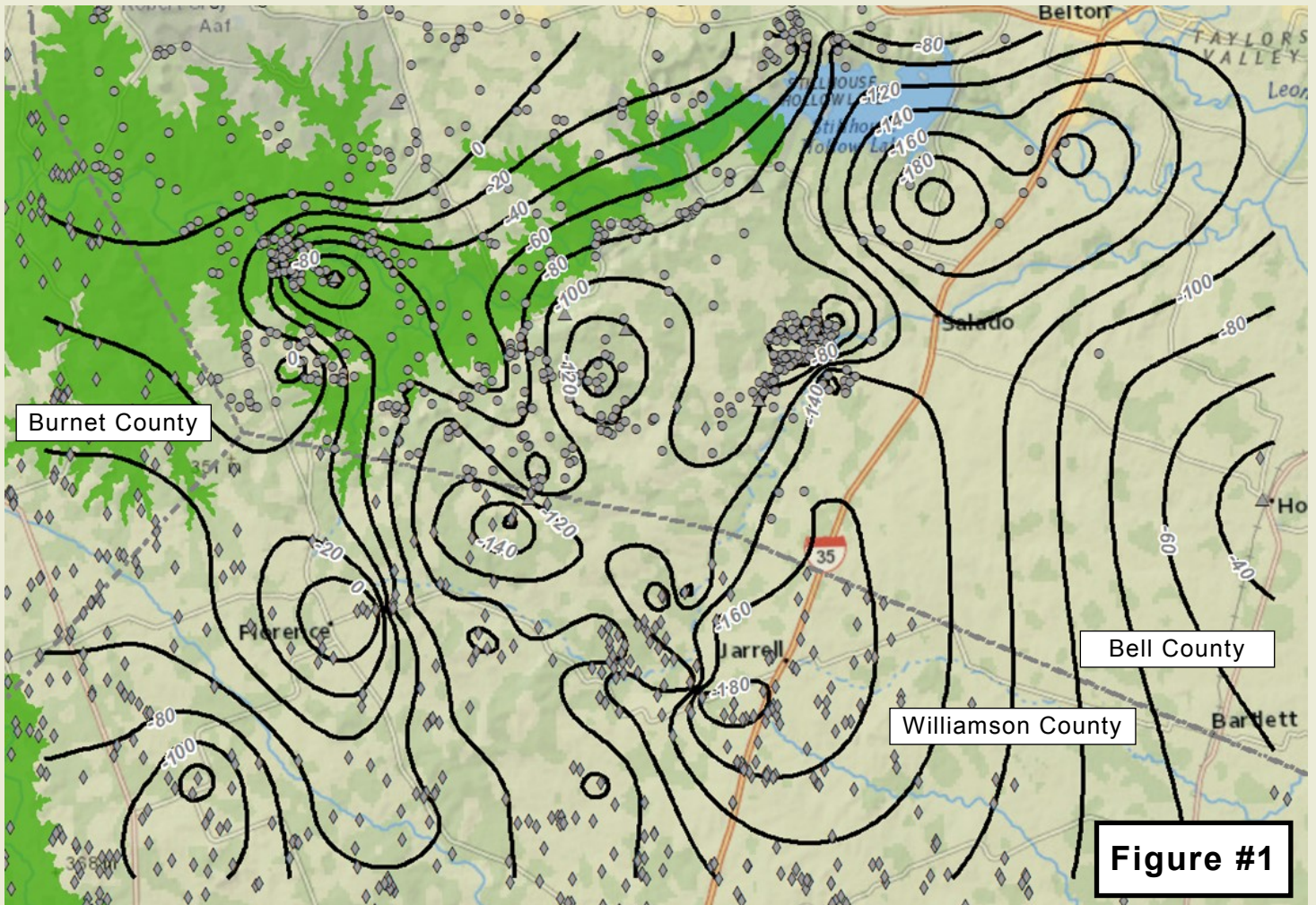
During this year's late summer, Clearwater UWCD received numerous reports from property owners and local well drillers that indicated water levels within the Middle Trinity aquifer in the southwest region of Bell County, were declining at a rapid rate. These reported declines are creating a burden on well owners, because many have had to lowering or replace of pumps in order to continue obtaining needed water supplies. To quantify the amount of water level decline and determine where declines were the greatest, Clearwater UWCD hired LBG-Guyton & Associates to conducted an evaluation of the water levels collected

from wells drilled to the Middle Trinity aquifer during 2006, 2010, and 2013 to gain a historical perspective.

Figure #1 illustrates the concentration of those wells in Bell County and parts of Williamson County where the location of the cone of depression associated with water use in those areas. The preliminary report illustrates that the causes of the recent decline in the Middle Trinity are from the drought of 2011 thru 2014, new home construction in rural areas dependent on groundwater, rural well owners using groundwater for excessive

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“MIDDLE TRINITY AQUIFER WATER LEVEL CONCERN” (CONT.)



(Continued from page 1)

landscapes, and a regional drawdown from large groundwater production south of the Bell County line. Figure #1 illustrates the location of multiple cones of depression with extreme water level declines of up to 180 feet over a six year period.

The available water level data indicates that groundwater in the Middle Trinity is flowing primarily from the southwest (City of Florence) to the northeast (Village of Salado). However, recent measurements also indicate the development of a cone of depression south of Belton and a local cone of depression developing around the cluster of wells located west of Salado (domestic wells in Hidden Springs). A similar cone of depression is also forming in the Jarrell area where water levels declined about 140 feet between 2010 and 2013. Extreme use of groundwater from the Middle Trinity aquifer (Hensell Layer) is evident in the rural northwest region of Williamson County.

As new wells are completed in the aquifer, the cumulative production from these new wells, along with existing wells, can cause the area wide aquifer water levels to decline faster than they did in the past. The rapid declines are evident near Jarrell and between Salado and Belton. In

recent years, we can often blame these declines on industrial use but in this case we must also blame these declines on extreme use of groundwater in rural subdivisions that have new home owners who are excessive in their landscape choices, ultimately watering outside plants and grass. In addition, concentrated production from many exempt small wells, such as those west of Salado, are creating localized long-term drawdown and significant water level fluctuations throughout the year. Clearwater UWCD has continued to urge local exempt well owners to reduce their use of groundwater for large lawns and excessive landscapes. Exempt well ownership prevents any governmental entity, including Clearwater UWCD, from stopping the use of your groundwater, but if you don't, mother nature will show wells owners what happens when the aquifer is depleted. Most of the area with these declines are also in the CCN of the Chisholm Trail Special Utility District, located in Florence Texas.

Clearwater is continuing to gather more information and will post updates on our District website as needed to keep the well owners in Bell County updated. It is important for well owners to take action and help reduce the impact by implementing conservation measures. The District staff is always available to discuss these topics in-depth.

PRESIDENT'S MESSAGE (CONT.)

(Continued from page 1)

database. This will soon be available to the public to look at and analyze. However, this model is not an exact science model since it is only made with the best available information and will continue to be updated as additional wells and data are obtained.

We are again having our annual water symposium on November 18th. I would encourage all interested citizens to attend this free symposium for the full day or any part as your schedule will allow. Your District is here to help you. If you have a need for a program, speaker or information, please contact the District office.

If you have not used our website, please do so. Besides our District information, which we strive to be fully transparent, we have a mapping section that is the best available to the public. As a parting comment, please be conscious and conserve our water resources. What you use today may be the water you or your children may be needing to drink in the future.

Leland Gersbach, President
Clearwater UWCD

WELL REGISTRATION REPORT

Well Registration Summary '02 through '14

Period	Exempts Wells		Non-Exempt Wells		Total
	Existing	New	Existing	New	
2002-2013	4,084	756	107	40	4,987
2014	20	38	1	5	64
Total	4,104	794	108	45	5,051

Well Registration: Since the District's opening in 2002, a total of 5,051 wells have been registered through October 2014. 153 of these wells are non-exempt and 4,898 are exempt. Well registration for 2014 through October is reported at 64.

Aquifer	Non-Exempt Well Production (Ac-Ft/Year)	Estimated Exempt Well Production (Ac-Ft / Year)
Edwards (BFZ)	1,879.34	384
Trinity	902.88	932
Other Aquifers	245.64	749
Total	3,027.86	2,065

Join the District for the 14th Annual Bell County Water Symposium

Central Texas Council of Governments Building
2180 N. Main Street (old Walmart) Belton, Texas
November 18, 2014 8:30 A.M. — 3:30P.M.

Key Topics and Speakers

Drought of Record? (2011 — 2014)

Dr. John Nielsen-Gammon, State Climatologist, Texas A&M University

Groundwater Issues in the Upcoming Legislative Session and Texas Alliance of Groundwater Districts Overview

Stacey Steinbach, Executive Director, TAGD
Carolyn Cadena, Program Director, TAGD

Groundwater Law Today and Tomorrow (Court Decisions and their Impact)

Ty Embrey, Attorney, Lloyd Gosselink Rochelle and Townsend

State Water Planning — The Process

Brenner Brown, Manager Brazos Region, State Water Planning Team,
Texas Water Development Board

Water — Energy Nexus

Michael J. Nasi, Partner, Jackson Walker L.L.P.

Who Supplies to Who to Get to You? Status of Surface Water Supply in Central Texas and Future Water Plans

David Collingsworth, Basin Manager, Central & Lower Regions,
Brazos River Authority

3-D Groundwater Modeling of Bell County

Allan R. Standen, LLC, Groundwater & Natural Resources Consulting

Status of the Trinity Aquifer and It's Many Layers in Bell County

James Beach, Vice President, LBG-Guyton Associates
Mike Keester, Senior Hydrogeologist, LBG-Guyton Associates

New Understanding of the Northern Segment of the Edwards BFZ

Dr. Joe Yelderman, Hydrogeologist, Baylor University
Ms. Stephanie Wong, Graduate Assistant, Baylor University

Understanding the Geochemistry of the Edwards BFZ

Dr. Marylynn Musgrove, Research Hydrologist, U.S.G.S.

**This event is free but requires RSVP
call by November 14th 5:00 p.m.**

Event Sponsors

Clearwater UWCD
LBG-Guyton Associates
HALFF Associates

Lloyd-Gosselink Attorneys at Law
Bell County Engineers Office
Texas AgriLife Extension Service

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
(Committee chair)
- Bradley Ware—Precinct 4
- Bill Schumann —At Large

WATER QUALITY TEST

The District's in house lab offers registered well owners free testing for common constituents and bacteria. Testing bottles are available in our office. Annual testing is recommended.

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 District
P.O. Box 1989
700 Kennedy Court
Belton TX 76513

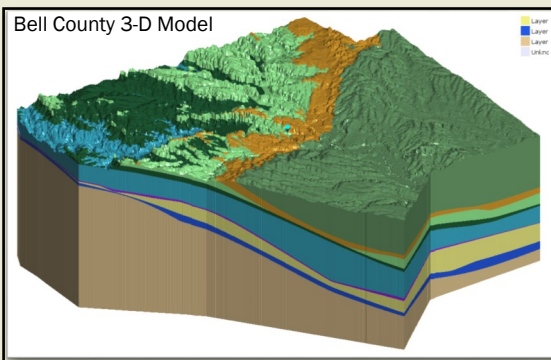
Ph: 254-933-0120
Fax: 254-770-2360
www.cuwcd.org

THE MANAGER'S COMMENTS

The Clearwater Underground Water Conservation District has moved into the new fiscal year (October 1, 2014–September 30, 2015) with continued emphasis on the original expectations of the citizens of Bell County. Our District was created under Article XVI, § 59 of the Texas Constitution and operates pursuant to its enabling legislation and Chapters 36 and 49 of the “Texas Water Code”. The District was created to manage and protect the groundwater resources of Bell County, Texas.

The guiding principles of the District are stated and confirmed by the Board of Directors in the District’s Management Plan as well as the District Rules. This puts me (General Manager) on a defensible course to implement a staffing effort that meets the goals, objectives, and performance standards described in the management plan. The current board directives and decisions are conservative in nature, yet accomplish the day to day responsibilities with a full-time staff of three, which includes the General Manager, Administrative Assistant, Education Coordinator/Field Technician, and one part-time employee to support digitizing district data.

In 2014 the Board had Mr. Allan Standen prepare and develop a 3-D Model of the District and its aquifers. The finished model



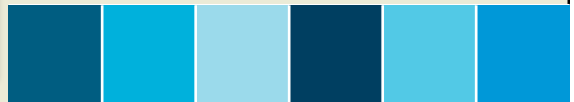
is complete and available for our Staff to assist landowners evaluate options for groundwater production in a given location. Models are not perfect thus this model will require ongoing calibration and updating as new information becomes available. Upon request, we are willing to assist landowners who need information on their land and its groundwater resources.



I also encourage well owners to make sure that our files are complete on their respective wells. We also acknowledge that a well is a tremendous financial asset when properly registered and constructed in accordance with the Texas Department of Licensing and Regulations. Clearwater UWCD communicates with local and region wide well drillers and pump installers on the State rules of construction and completion of wells and demands that those rules are adhered to on behalf of the well owner. Constructing and maintaining a well of any kind is very expensive and a huge liability if unregistered and improperly completed.

Please feel free to call our staff at any time for assistance. We pride ourselves on accurate and efficient response to your needs.

Dirk Aaron, General Manager
Clearwater UWCD



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(NAME)
(STREET)
(CITY)