



*Every drop counts!*



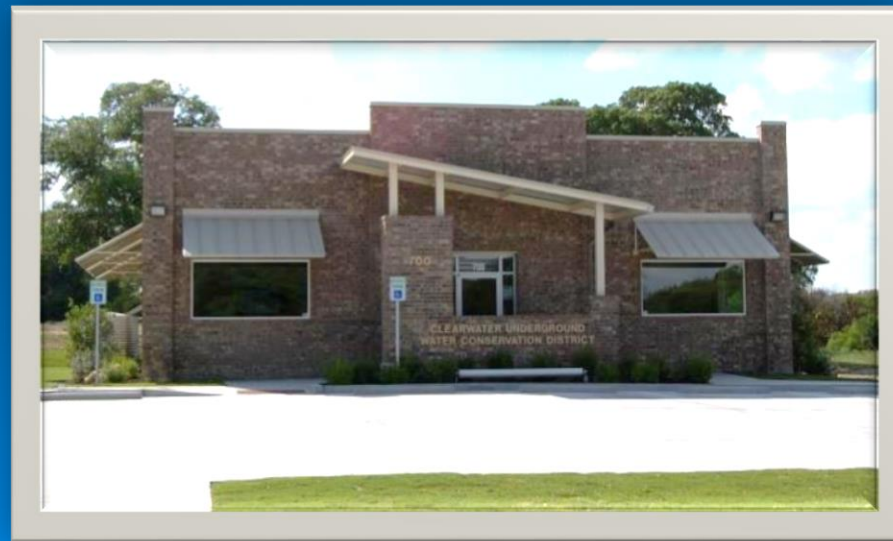
# Clearwater Staff

**Dirk Aaron – General Manager**

**Shelly Chapman – Administrative Assistant**

**Tristin Smith– Educ/Compliance Coordinator**

**Corey Dawson– Field Technician**



# Elected Board of Directors

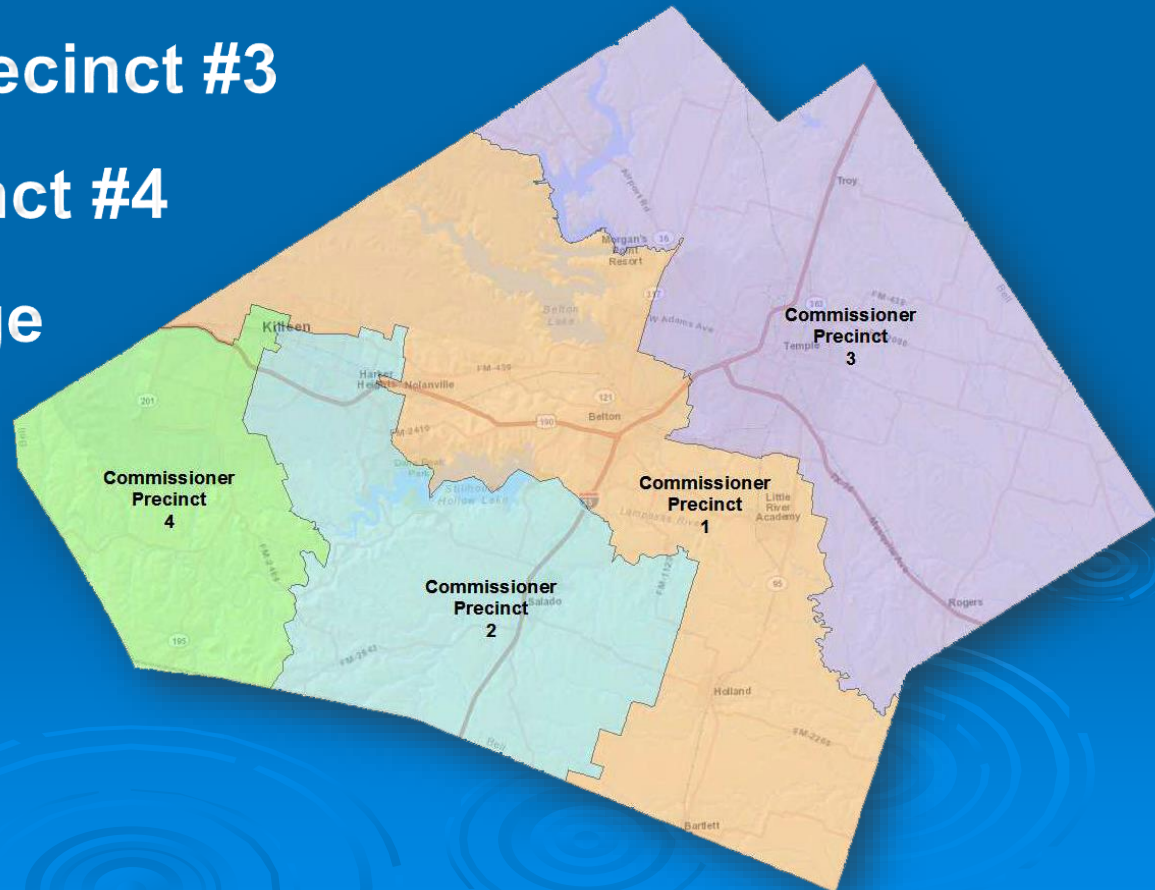
Leland Gersbach - Precinct #1

Gary Young - Precinct #2

Wallace Biskup - Precinct #3

Judy Parker - Precinct #4

David Cole - At-Large





# History of District



- ❖ Created by 71<sup>st</sup> Legislature in **1989** (HB 3172).
- ❖ Confirmed by Bell County voters in **1999**.
- ❖ Doors opened for business in **2002**.
- ❖ District's jurisdiction includes all of **Bell County**—approximately **1,055** square miles.
- ❖ Authority to levy ad valorem tax at rate not to exceed one cent/\$100 assessed value—FY15 tax rate **\$0.00392/\$100** assessed value.





# Groundwater Conservation Districts

## GCD's

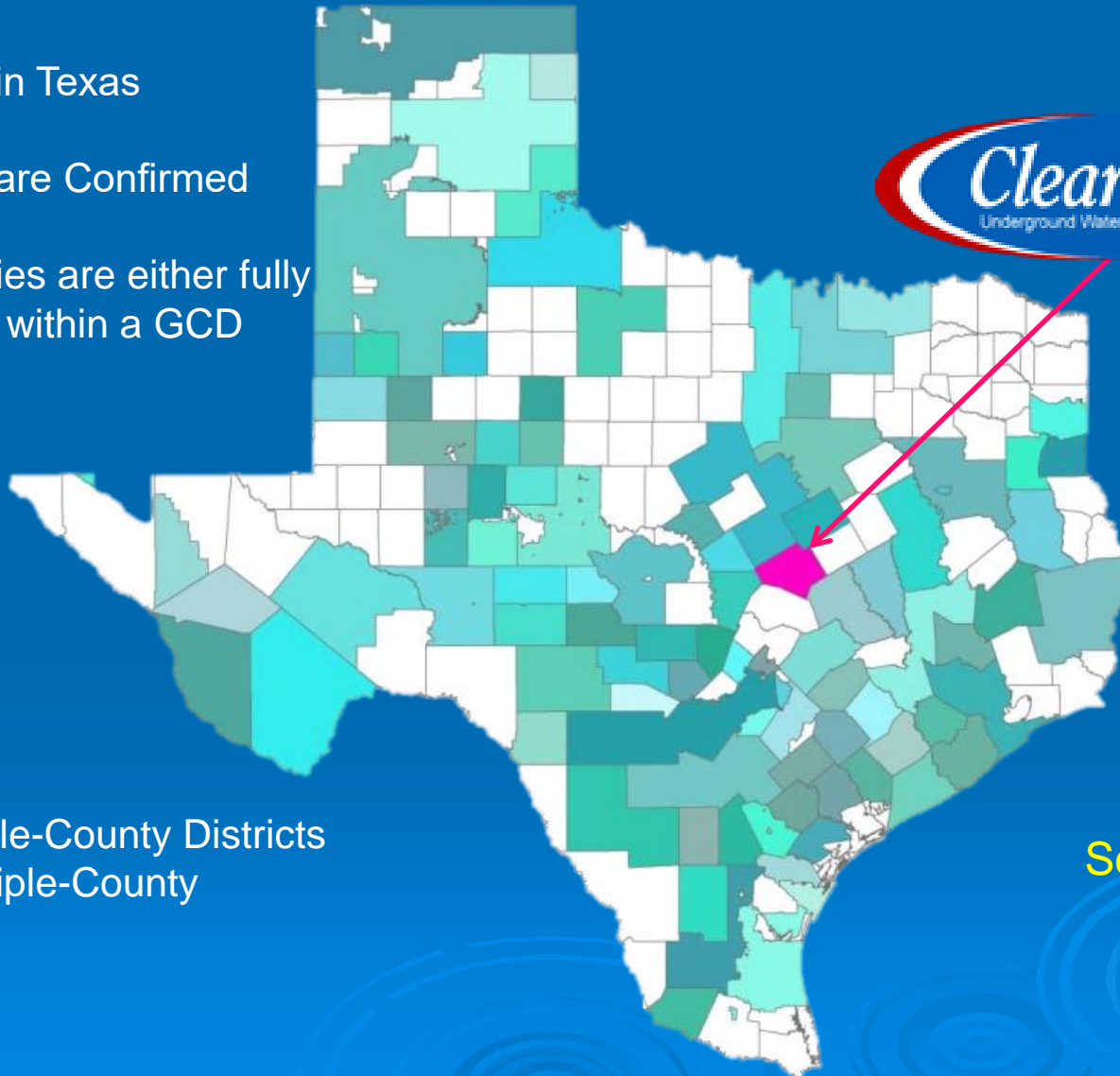
99 GCD's in Texas

98 GCD's are Confirmed

177 Counties are either fully or partially within a GCD

61 Single-County Districts

38 Multiple-County



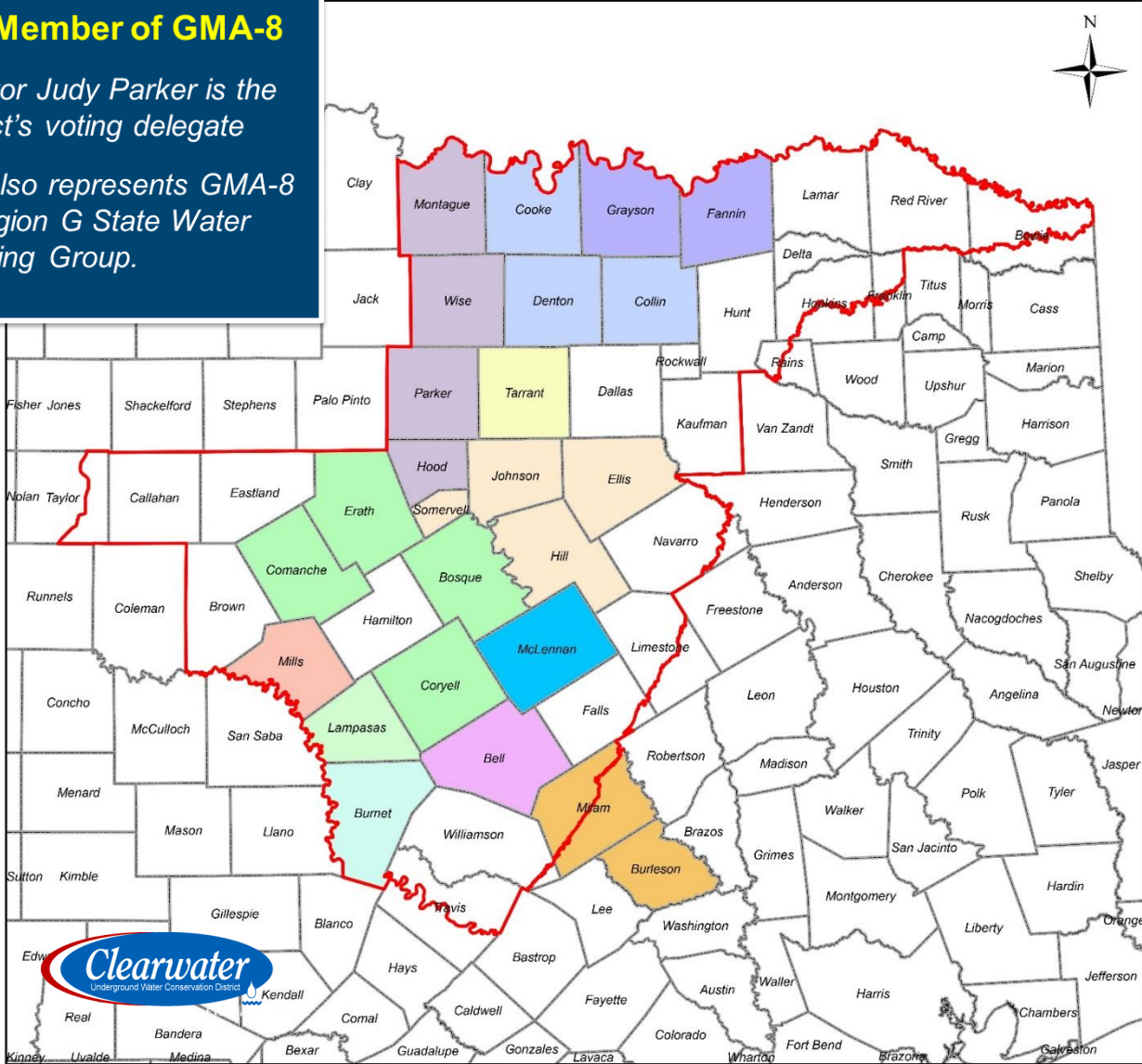
*Every drop counts!*

Source: TWDB

# Groundwater Management Area 8

## Clearwater UWCD is an Active Member of GMA-8

- Director Judy Parker is the District's voting delegate
- She also represents GMA-8 at Region G State Water Planning Group.



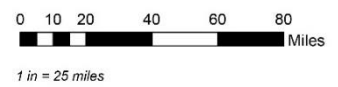
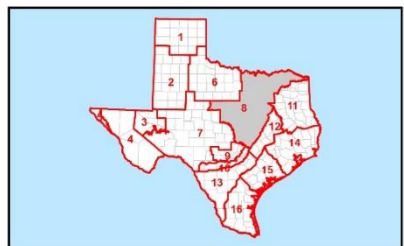
**MAP LEGEND**

- GMA 8
- Counties

**Groundwater Conservation Districts**

- Central Texas GCD
- Clearwater UWCD
- Fox Crossing Water District
- Middle Trinity GCD
- North Texas GCD
- Northern Trinity GCD
- Post Oak Savannah GCD
- Prairielands GCD
- Red River GCD
- Saratoga UWCD
- Southern Trinity GCD
- Upper Trinity GCD

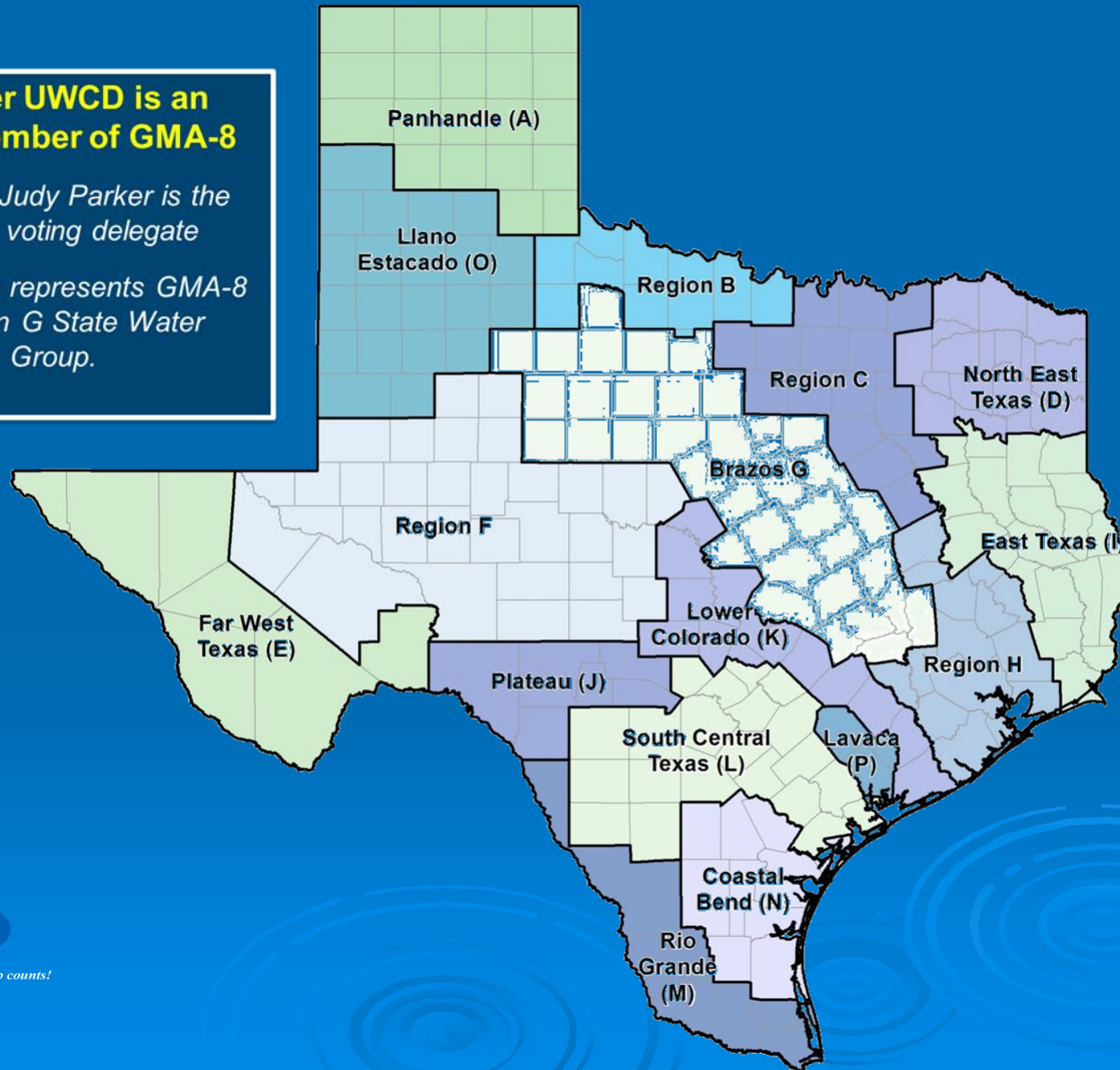
DISCLAIMER  
This map was generated by the Texas Water Development Board. No claims are made to the accuracy or completeness of the information shown herein nor to its suitability for a particular use. The scale and location of all mapped data are approximate. Boundaries for groundwater conservation districts are approximate and may not accurately depict legal descriptions.  
Updated 7/18/2013



# Regional Water Planning

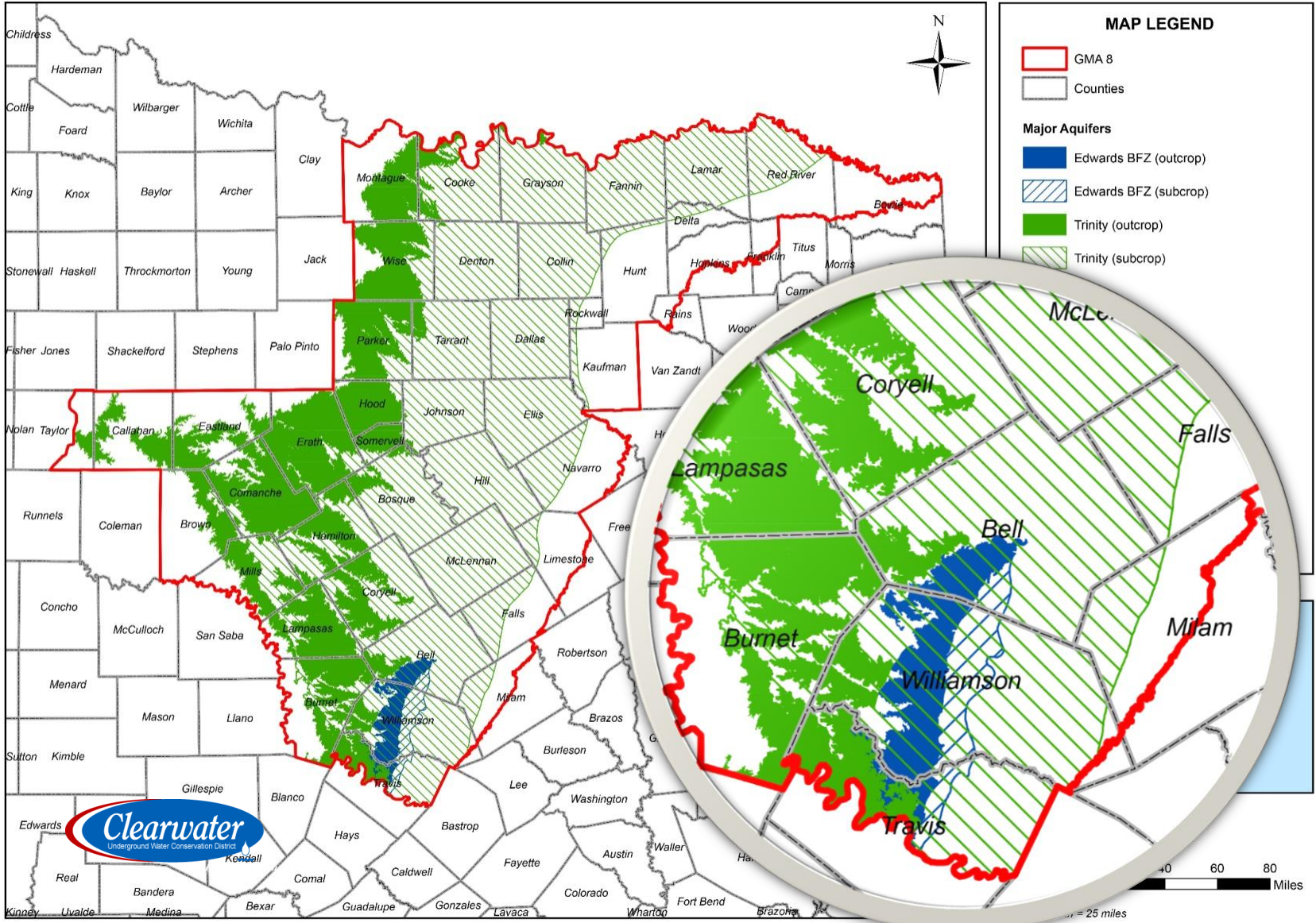
## Clearwater UWCD is an Active Member of GMA-8

- Director Judy Parker is the District's voting delegate
- She also represents GMA-8 at Region G State Water Planning Group.





# Groundwater Management Area 8



## MAP LEGEND

- GMA 8
  - Counties
- Major Aquifers**
- Edwards BFZ (outcrop)
  - Edwards BFZ (subcrop)
  - Trinity (outcrop)
  - Trinity (subcrop)

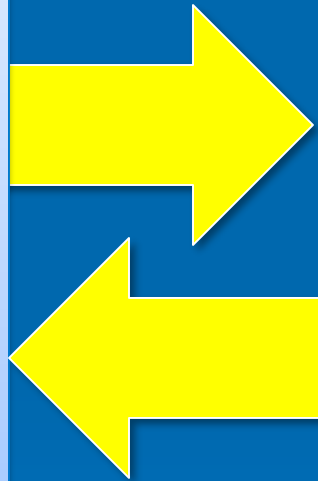


Scale: 0, 40, 60, 80 Miles

# Management / Legal Authority

## Guiding Principles

- ❖ Protect
- ❖ Preserve
- ❖ Educate
- ❖ Regulate
- ❖ Studies
- ❖ Facilitate
- ❖ Interpret
- ❖ Administer
- ❖ Transparent



- ❖ Texas Constitution (1917)
  - ❖ Conservation Amendment<sup>1</sup>
- ❖ Chapter 36- State Water Code
- ❖ Texas Supreme Court Affirmation
- ❖ District Management Plan
- ❖ District Rules
- ❖ District Policy and Procedures
- ❖ District Annual Report

*<sup>1</sup>Made the Development, Management, and Conservation of our natural resources (including water) a constitutional right of each and every Texan*

# District Rules – Major Points

- ❖ All wells in Bell County are required to be registered.
- ❖ Wells exempt from permitting include:
  - ❖ Wells used for domestic purposes or for watering livestock or poultry
  - ❖ Wells must be incapable of producing more than **17 gpm.** (**25,000 gallons per day**)
  - ❖ Wells must be located on a tract of land consisting of at least **ten acres**; smaller tracts are acceptable if they were lawfully configured prior to March 1, 2004 as a tract less than 10 acres in size.
- ❖ All non-exempt wells must obtain a permit and report monthly production.

3,547 active exempt wells

5184 well pts in the data base

124 active permitted wells

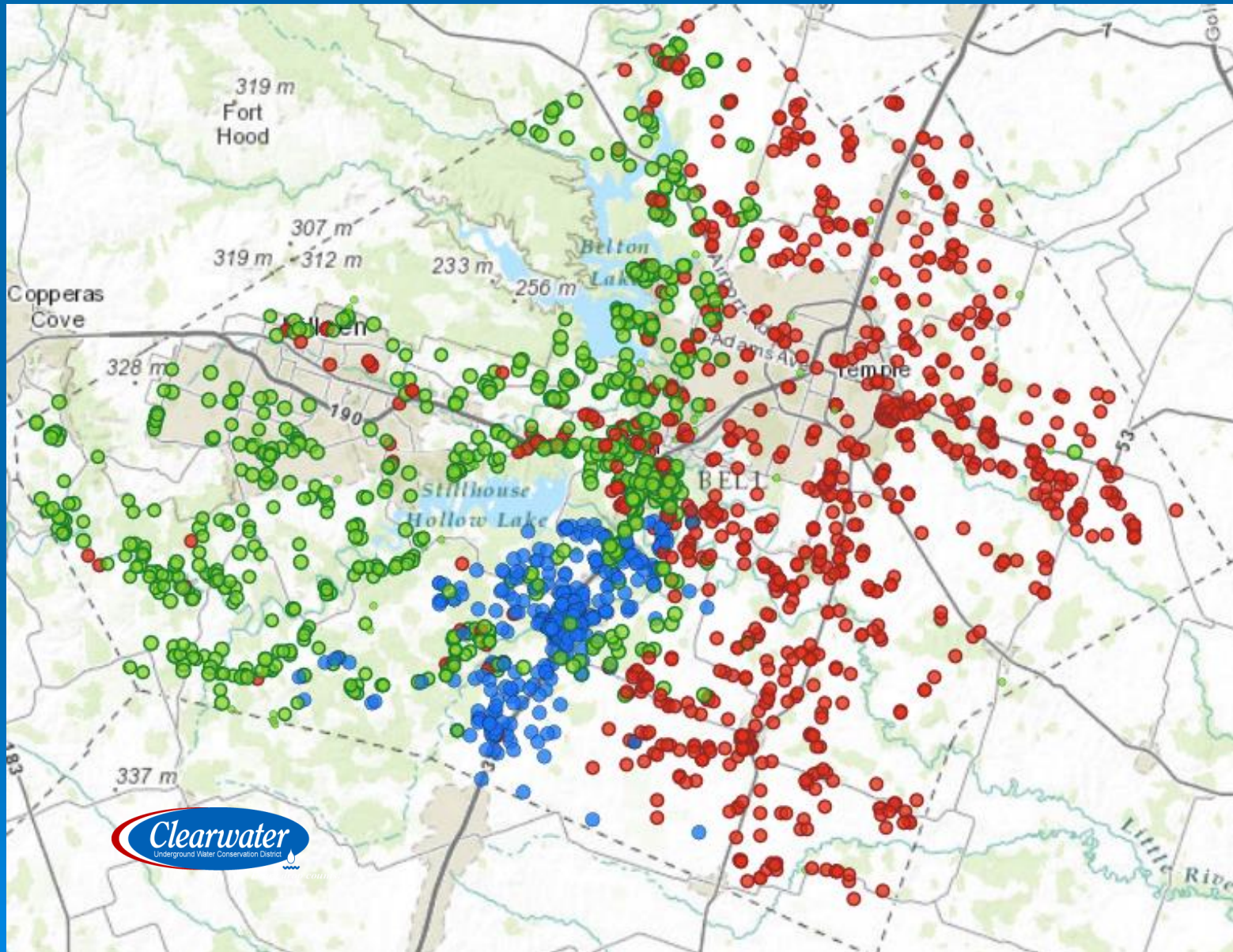
54 in the Edwards BFZ

51 in the Trinity Aquifer

18 in the Other formations



# Bell County Wells By Aquifer



# DFC vs MAG

## Desired Future Condition VS Modeled Available Groundwater

### Trinity Aquifer Status Report – April 2015

<u>DFC analysis over time</u> (2000-Present) <i>Modeled Available Groundwater</i>			<u>HEUP and OP Permit Analysis</u> <i>Relative to the Modeled Available Groundwater</i>				<u>2015</u> <u>YTD Prod.</u> <u>41.71 ac-ft</u> <u>1.73%</u>	<u>Pending</u> <u>Applications</u>		<u>Exempt Well</u> <u>Reservations</u>		
Trinity Aquifer (by layer)	<u>DFC Adopted Average drawdown *</u> (by layer)	<u>Current Trend DFC **</u> Drawdown ft/year	MAG Ac/ft***	HEUP Ac/ft	OP Ac/ft	Total Permitted Ac/ft (by layer)	2014 Actual Production By Aquifer Layer	Available for Permitting Ac/ft (by layer)	Pending Applications Acre ft (by layer)	Exempt Well Reservation Ac/ft by layer	2014 Exempt Well Use Estimation	Available Exempt Use
Glen Rose (upper)	<b>3.1 ft/yr</b> 155 ft/50 yrs	<b>0.88 ft</b> 2000-15	992	61.90	120.15	182.05	74.70	116.95	0	693	491	202
Hensell (Middle)	<b>5.72 ft/yr</b> 286 ft/50 yrs	<b>3.82 ft</b> 2000-15	1,076	259.30	203.68	462.98	87.11	65.02	0	548	386	162
Hosston (Lower)	<b>6.38 ft/yr</b> 319 ft/50 yrs	<b>2.97 ft</b> 2000-15	5000	1181.40	850.14	2031.54	604.84	2790.46	**** 2,821.00	178	52	126
<b>Total</b>			<b>7068</b>	1502.60	1173.97	2676.57	<b>766.64 ac-ft</b> (28.64%)	<b>2972.43</b>	<b>2,821.00</b>	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 -2014 and expressed as feet per year per layer.

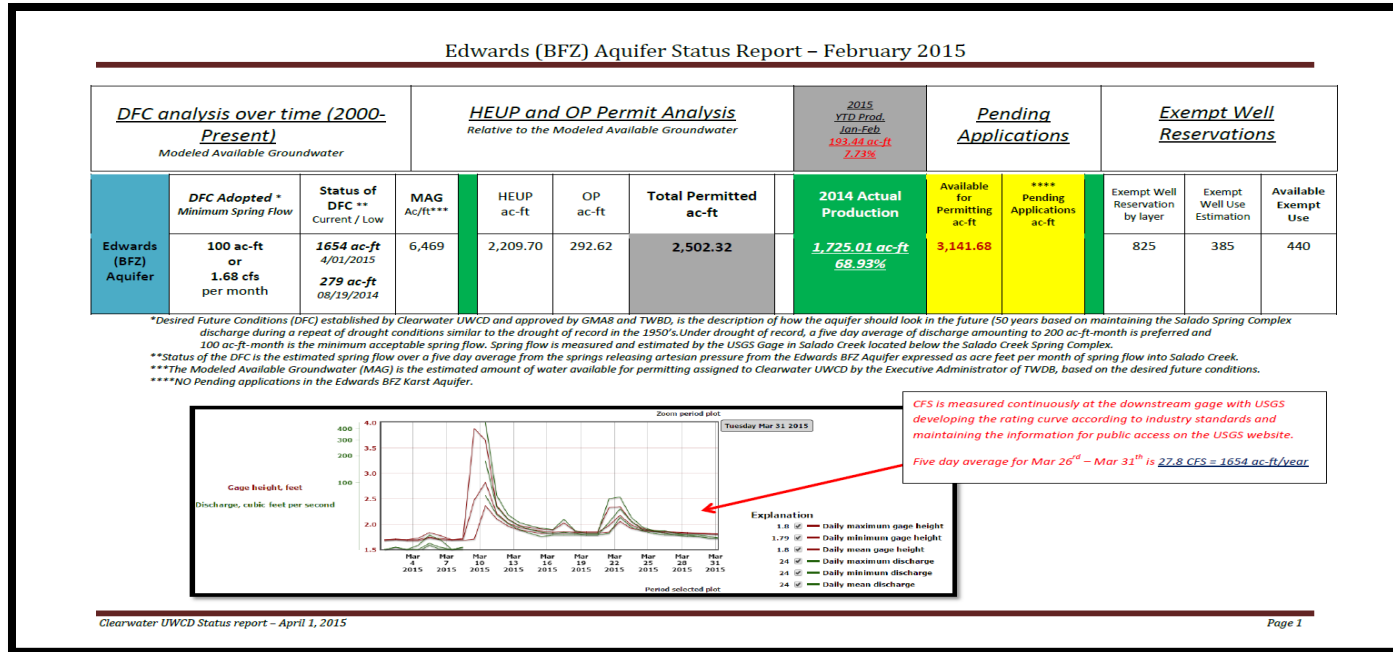
\*\*\*The Modeled Available Groundwater (MAG) is the estimated amount of water available for permitting assigned to Clearwater UWCD by the Executive Administrator of TWDB.

\*\*\*\*Pending applications in the Hosston Layer (Lower) of the Trinity Aquifer (2421 acre feet)

Central Texas WSC Drilling Permit Well #1 (726 ac/ft), Central Texas WSC Drilling Permit Well #2 (1695 ac/ft), McLane Group LLC Well #1 (400 ac/ft)

# DFC vs MAG

## Desired Future Condition VS Modeled Available Groundwater

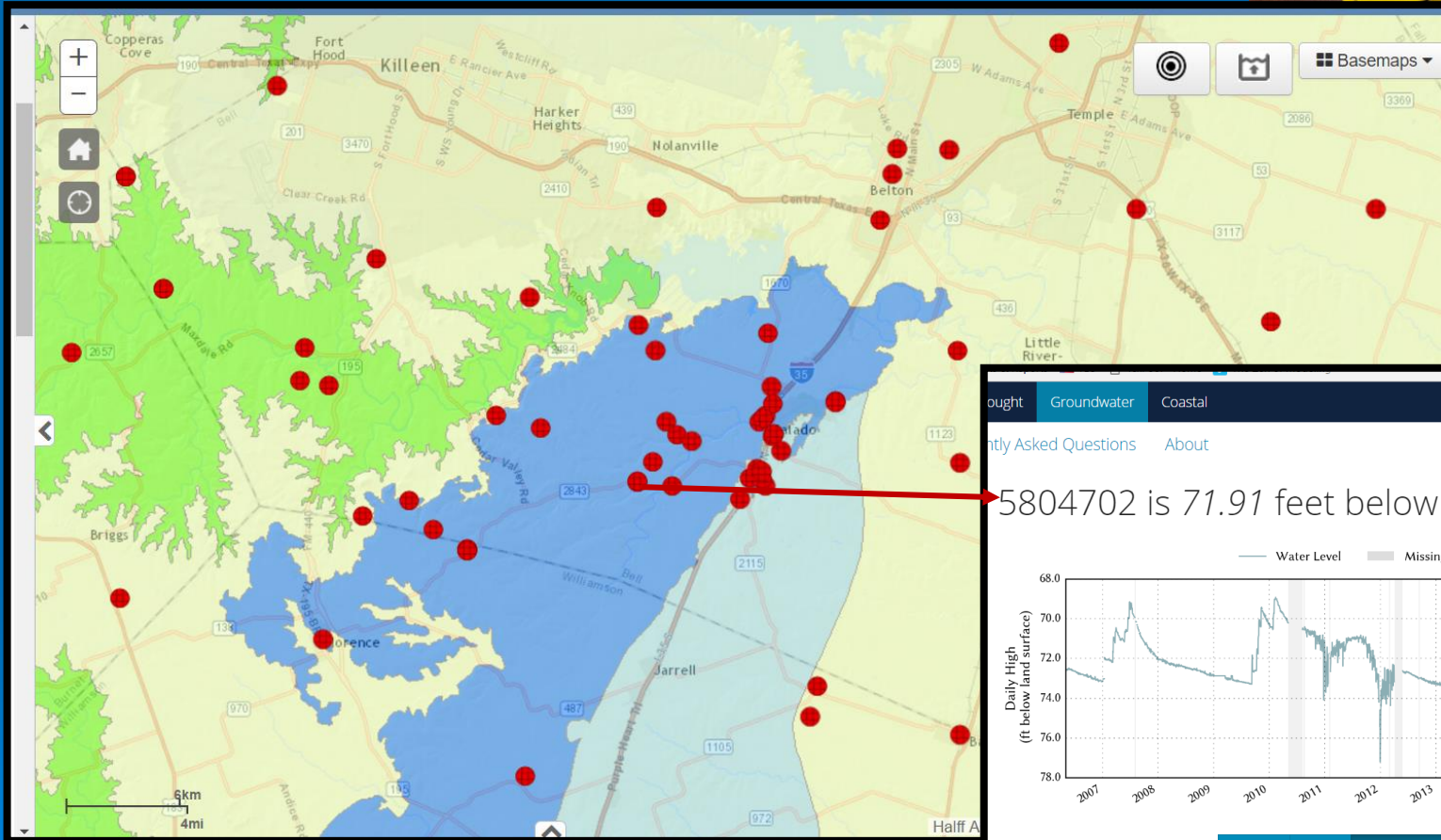


- District manages to the DFC and Modeled Available Groundwater.
- District permits are renewed annually.
- DFC is based on monitor well effort and statistical data starting in 2000.
- The DFC vs MAG is a part of the permitting process.
- Efforts to not bust the MAG have been on going until defendable data on the DFC can be attained.



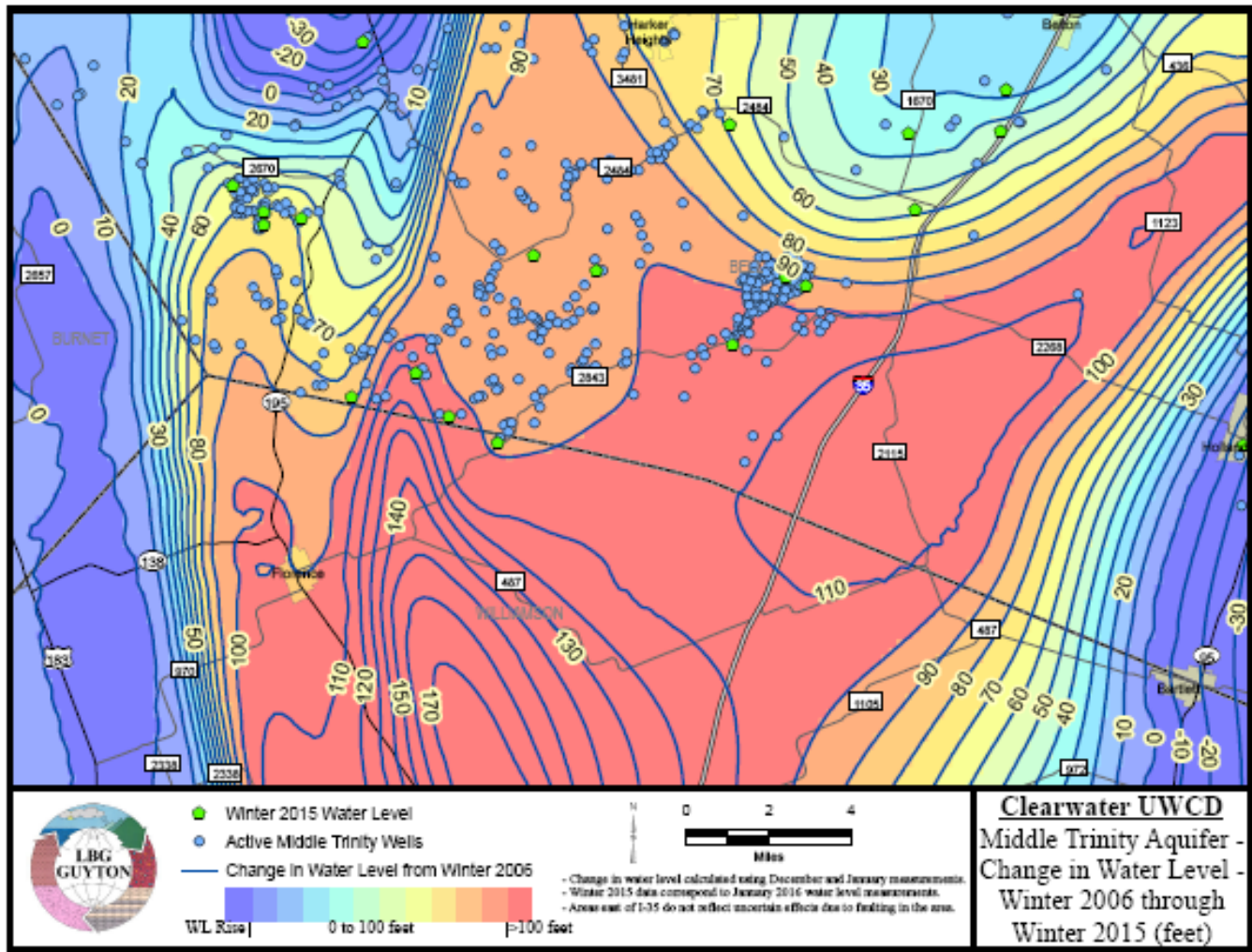
# Managing What We Measure

## District Monitor Wells



Hensell Layer of the Trinity Aquifer

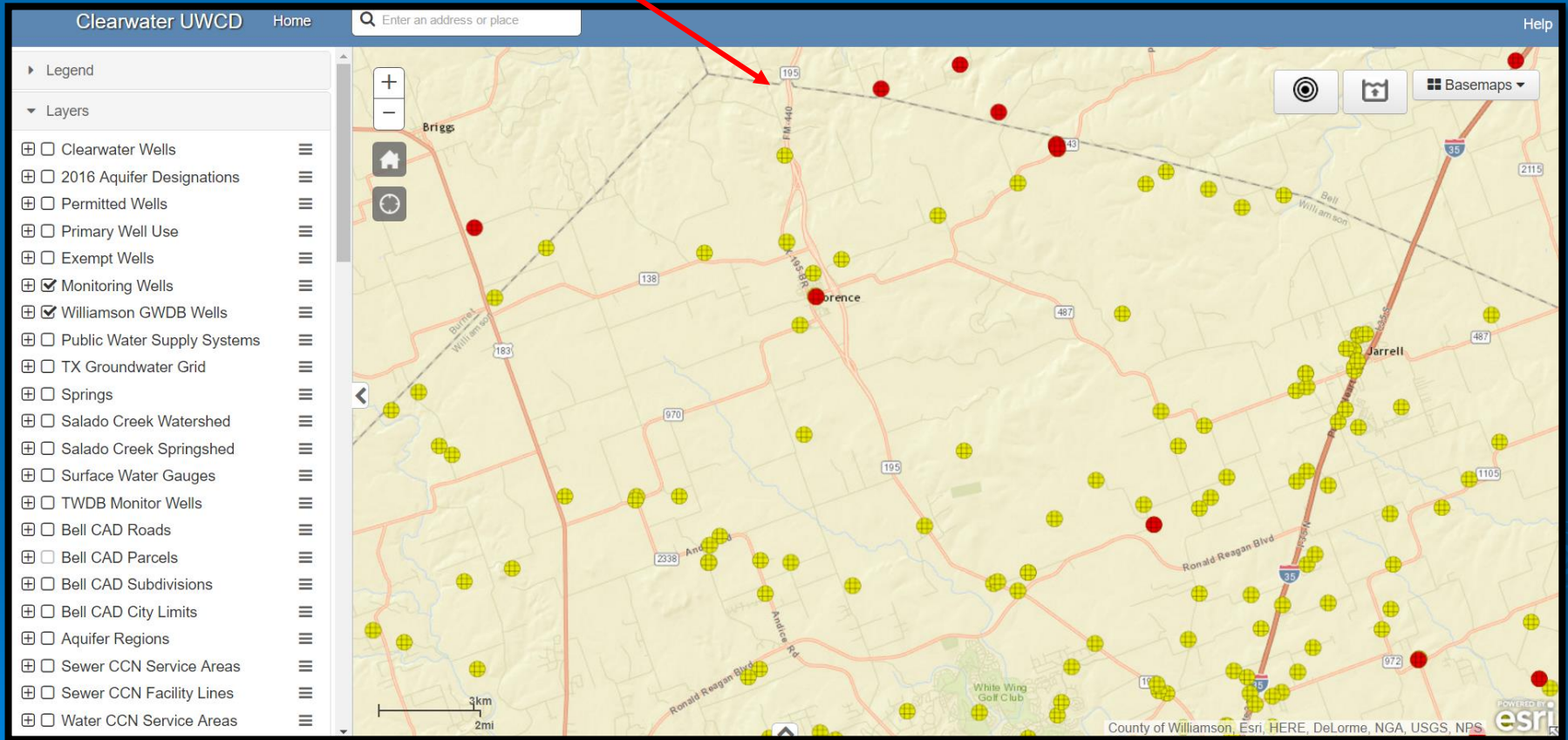
Does over production by others impact my water resources?



# Is Groundwater Utilized South of Us?

Source is TWDB data base

Bell County Line





# District Use of Technology

Real time data keeping Bell County up to date!

**Clearwater**  
Underground Water Conservation District  
Every drop counts!

Contact Us | Directions | Public Records

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

EDWARDS STATUS | TRINITY STATUS | RAINFALL MAPS | TEXAS DROUGHT MONITOR

### EDWARDS BFZ AQUIFER DROUGHT STATUS DECLARATION - STAGE 1

Stage	Recommendation	Usage Reduction	PDI (%)
NO DROUGHT	-	-	100%
STAGE 1: AWARENESS	RECOMMEND 10% USAGE REDUCTION	10%	79%
STAGE 2: CONCERN	RECOMMEND 20% USAGE REDUCTION	20%	59%
STAGE 3: SERIOUS	RECOMMEND 30% USAGE REDUCTION	30%	50%
STAGE 4: CRITICAL	RECOMMEND 40% USAGE REDUCTION	40%	0%

28.48 PDI  
86.29%

Salado Creek Spring Discharge: 601 ac/ft (month) / 10.1 cfs

PDI is based on a 33" normal yearly average and is a 365 day running total.

AS OF 5/19/14

Clearwater UWCD will remain in Stage 1 - Voluntary Awareness drought stage for... [READ MORE](#)

**CLEARWATER PUBLIC ACCESS MAPS**  
[CLICK HERE](#)

**GROUNDWATER LEVELS**

**TEXAS RESERVOIR LEVELS**

The District is responsible for the management of groundwater in Bell County, Texas. The District's mission is to "develop and implement an efficient, economical and environmentally sound groundwater management program to protect and enhance the water resources of the district."

**UPCOMING EVENTS**

- June Board Meeting  
June 17 @ 1:30 pm
- June Permit Hearing  
June 17 @ 1:30 pm

[View All Events](#)

**New TWDB Daily Groundwater Levels Website Launched**

18 March 2014

AUSTIN – Today Texans are more aware than ever of the importance of groundwater. As part of ongoing efforts to synthesize and communicate water-related data to scientists, policy makers and the public, the Texas Water Development Board (TWDB) today announced its Water Data for Texas website now includes groundwater data. The website has been a source of information on reservoirs and drought since November 2012.

TWDB's Recorder Well Program has more than doubled in the past 15 years, partially because more groundwater conservation districts are participating in the program. TWDB currently maintains 184 recorders in 79 counties. In addition to the TWDB network, the U.S. Geological Survey and the Edwards Aquifer Authority also maintain their

**Clearwater**  
Underground Water Conservation District  
Every drop counts!

Contact Us

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

### Salado Creek Gauges

**USGS**

#### USGS 08104300 Salado Ck at Salado, TX

DAILY Discharge, cubic feet per second

Apr 26 2014 | May 03 2014 | May 10 2014 | May 17 2014 | May 24 2014 | May 31 2014 | Jun 07 2014

--- Provisional Data Subject to Revision ---  
— Daily maximum discharge —  
— Daily mean discharge —  
— Daily minimum discharge —

**USGS**

#### USGS 08104300 Salado Ck at Salado, TX

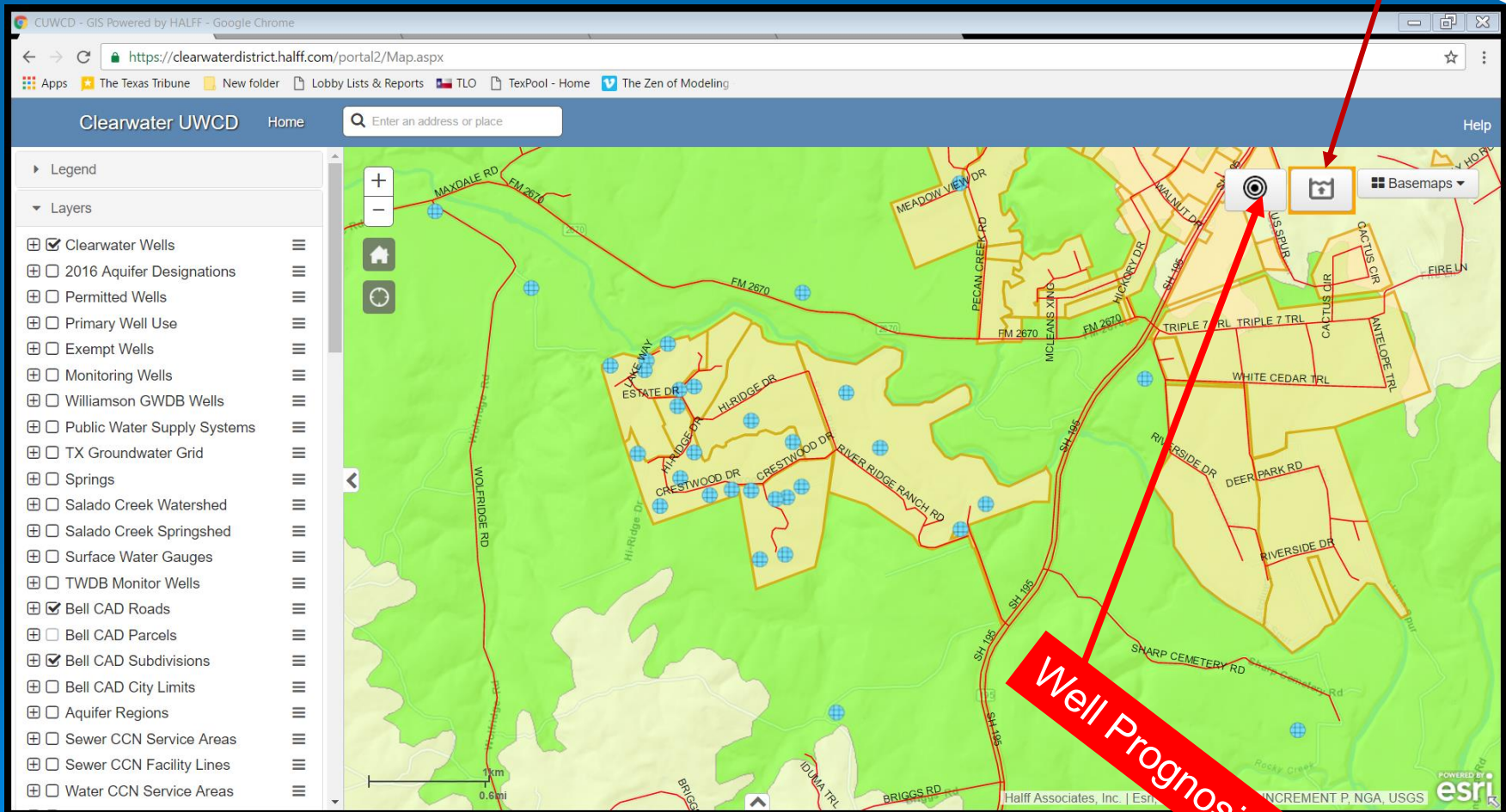
height, feet

1.80 | 2.00 | 2.20 | 2.40

# Public Access to Well Information

## Location, Trends and Changes

Water Levels

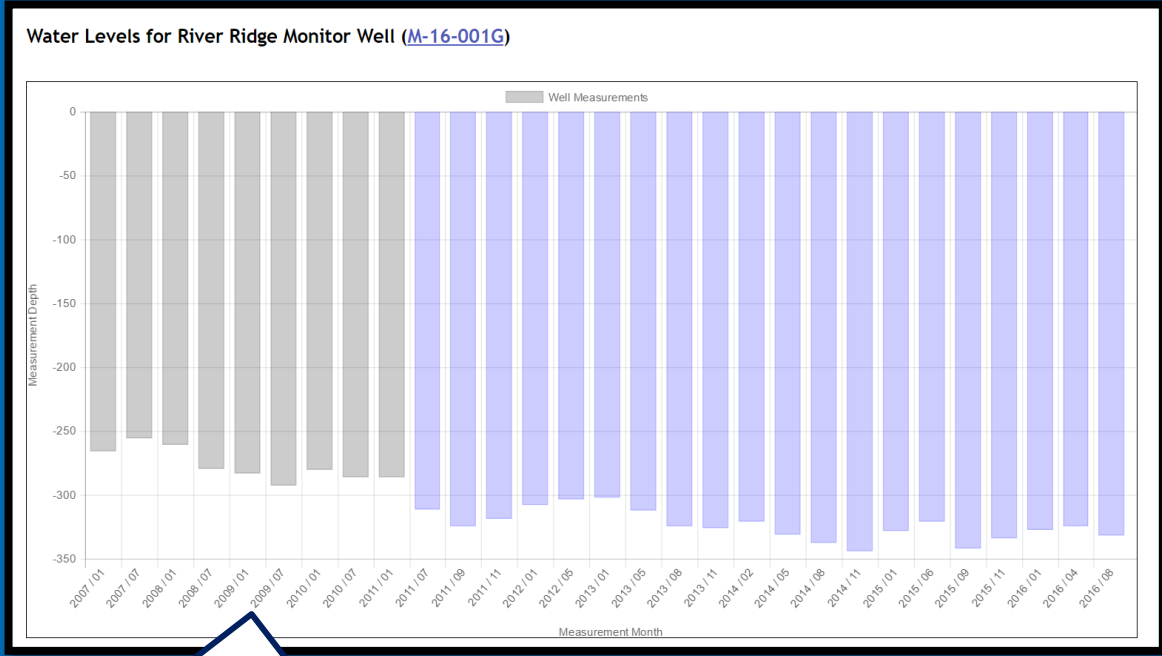


Well Prognosis

# Click on a Respective Well

Top of screen  
Water Levels over time

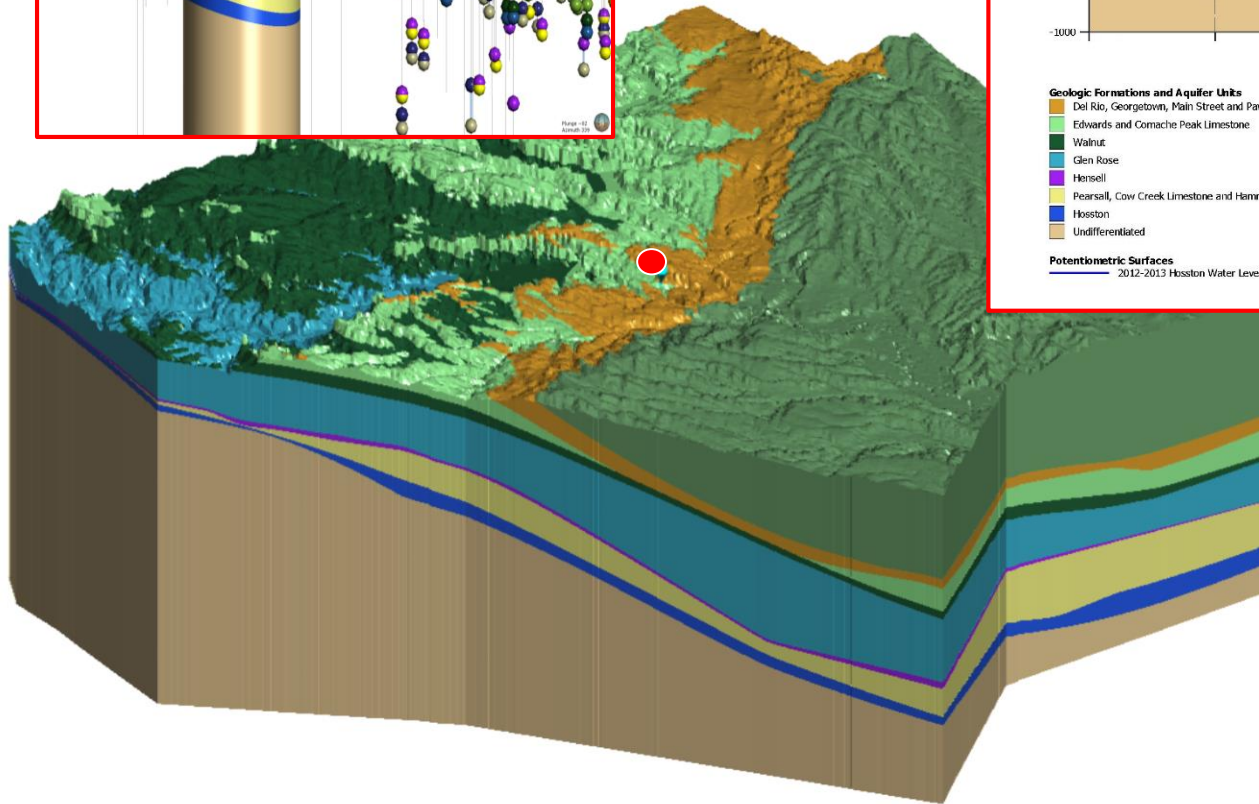
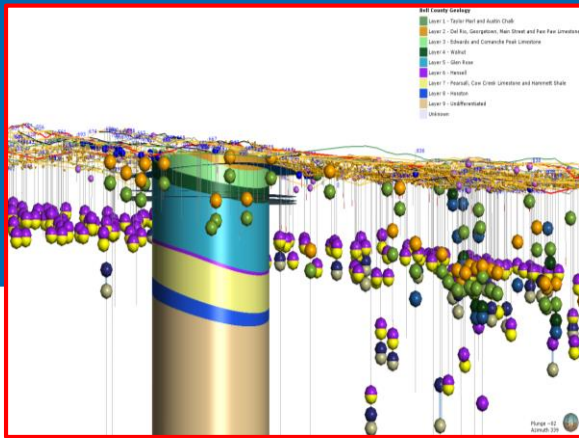
Loss of Head  
Pressure over  
6yrs = 20.3 ft  
3.38 ft per year



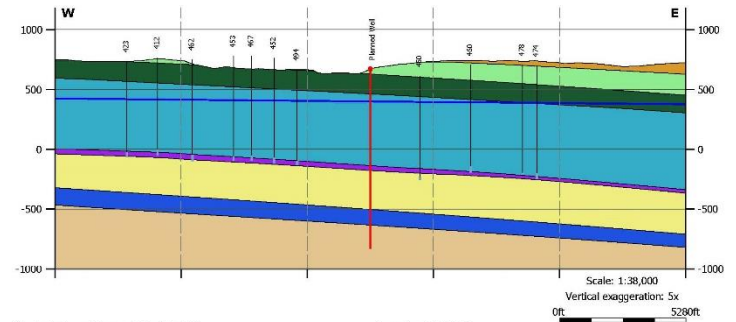
Bottom of Screen  
Historical data and  
method over time

7/1/2011	CUWCD	Sonic Water Meter	Static	-312	1.4	-310.6
9/1/2011	CUWCD	Sonic Water Meter	Static	-325.2	1.4	-323.8
11/1/2011	CUWCD	Sonic Water Meter	Static	-319.4	1.4	-318
1/1/2012	CUWCD	Sonic Water Meter	Static	-308.4	1.4	-307
5/1/2012	CUWCD	Sonic Water Meter	Static	-304.2	1.4	-302.8
1/1/2013	CUWCD	Sonic Water Meter	Static	-303.1	1.4	-301.7
5/1/2013	CUWCD	Sonic Water Meter	Static	-312.8	1.4	-311.4
8/1/2013	CUWCD	Sonic Water Meter	Static	-325.2	1.4	-323.8
11/1/2013	CUWCD	Sonic Water Meter	Static	-326.9	1.4	-325.5
2/1/2014	CUWCD	Sonic Water Meter	Static	-321.9	1.4	-320.5
5/11/2014	CUWCD	Sonic Water Meter	Static	-331.6	1.4	-330.2
8/1/2014	CUWCD	Sonic Water Meter	Static	-338.3	1.4	-336.9
11/1/2014	CUWCD	Sonic Water Meter	Static	-344.7	1.4	-343.3
1/1/2015	CUWCD	Sonic Water Meter	Static	-329.3	1.4	-327.9
6/1/2015	CUWCD	Sonic Water Meter	Static	-321.7	1.4	-320.3
9/1/2015	CUWCD	Sonic Water Meter	Static	-343	1.4	-341.6
11/1/2015	CUWCD	Sonic Water Meter	Static	-334.5	1.4	-333.1
1/1/2016	CUWCD	Sonic Water Meter	Static	-328.2	1.4	-326.8
4/1/2016	CUWCD	Sonic Water Meter	Static	-325.4	1.4	-324
8/30/2016	CUWCD	Sonic Water Meter	Static	-332.3	1.4	-330.9





West - East Fence Diagram #2  
(Lat: 30.913465, Long: -97.598082)



- Geologic Formations and Aquifer Units**
- Del Rio, Georgetown, Main Street and Paw Paw Limestone
  - Edwards and Comanche Peak Limestone
  - Walnut
  - Glen Rose
  - Hensell
  - Pearsall, Cow Creek Limestone and Hammett Shale
  - Hosston
  - Undifferentiated

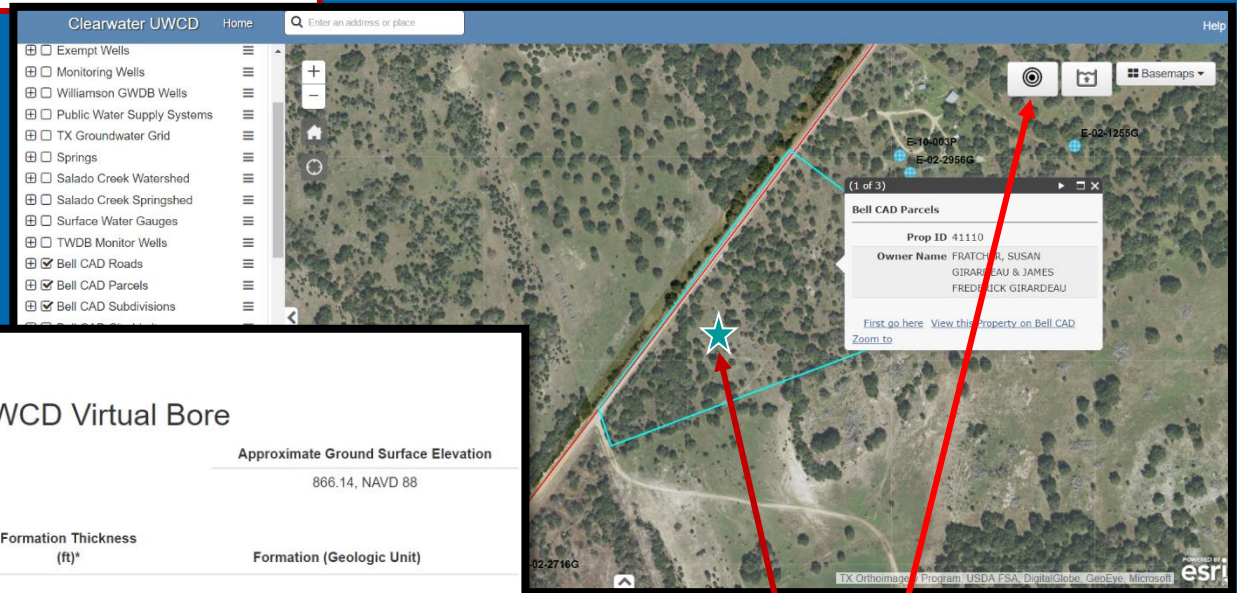
**Location (SP 4203)**  
W: 3141016, 10306501  
E: 3167416, 10306501

**Drilling Prognosis for Planned Well**

Depth (feet bgs)	Predicted Geology
0 - 43	Edwards and Comanche Peak Limestone
43 - 208	Walnut
208 - 808	Glen Rose
808 - 848	Hensell
848 - 1173	Pearsall, Cow Creek Limestone and Hammett Shale
1173 - 1302	Hosston

**Potentiometric Surfaces**  
2012-2013 Hosston Water Level Elevation (Confined Conditions)

# Well Prognosis



**Clearwater**  
Underground Water Conservation District

## Clearwater UWCD Virtual Bore

Latitude	30.94271	Approximate Ground Surface Elevation			
Longitude	-97.67089	866.14, NAVD 88			
Top Elev. (ft)	Bottom Elev. (ft)	Depth to Formation (ft)*	Formation Thickness (ft)*	Formation (Geologic Unit)	
1	866.14	847.73	0.00	18.41	Taylor Marl and Austin Chalk
2	847.73	680.41	18.41	167.32	Del Rio, Georgetown, Main Street and Paw Paw Limestone
3	680.41	108.13	185.73	572.28	Edwards and Comanche Peak Limestone
4	108.13	44.76	758.01	63.37	Walnut
5	44.76	-137.35	821.38	182.11	Glen Rose
6	-137.35	-224.27	1,003.49	86.92	Hensell
7	-224.27	-	1,090.41	-	Pearsall, Cow Creek Limestone and Hammett Shale

Select the desired spot on property  
 Lat/Long determined  
 Report Generated

# Water Well Disclosure

## Asset vs Liability

- TREC Forms
- Disclosure Form 2016

1. Well in place?
2. Registered?
3. Compliance?
4. Inspected?
5. WQ Tested?
6. Is a GCD in place ?

APPROVED BY THE TEXAS REAL ESTATE COMMISSION (TREC) 8-17-2015

**SELLER'S DISCLOSURE OF PROPERTY CONDITION**

CONCERNING THE PROPERTY AT: \_\_\_\_\_ (Street Address and City)

THIS NOTICE IS A DISCLOSURE OF SELLER'S KNOWLEDGE OF THE CONDITION OF THE PROPERTY AS OF THE DATE SIGNED BY SELLER AND IS NOT A SUBSTITUTE FOR ANY INSPECTIONS OR WARRANTIES THE PURCHASER MAY WISH TO OBTAIN. IT IS NOT A WARRANTY OF ANY KIND BY SELLER OR SELLER'S AGENTS.

Seller  is  is not occupying the Property. If unoccupied, how long since Seller has occupied the Property? \_\_\_\_\_

1. The Property has the items checked below (Write Yes (Y), No (N), or Unknown (U)):

<input type="checkbox"/> Range	<input type="checkbox"/> Oven	<input type="checkbox"/> Microwave
<input type="checkbox"/> Dishwasher	<input type="checkbox"/> Trash Compactor	<input type="checkbox"/> Disposal
<input type="checkbox"/> Washer/Dryer Hookups	<input type="checkbox"/> Window Screens	<input type="checkbox"/> Rain Gutters
<input type="checkbox"/> Security System	<input type="checkbox"/> Fire Detection Equipment	<input type="checkbox"/> Intercom System
	<input type="checkbox"/> Smoke Detector	
	<input type="checkbox"/> Smoke Detector-Hearing Impaired	
	<input type="checkbox"/> Carbon Monoxide Alarm	
	<input type="checkbox"/> Emergency Escape Ladder(s)	
<input type="checkbox"/> TV Antenna	<input type="checkbox"/> Cable TV Wiring	<input type="checkbox"/> Satellite Dish
<input type="checkbox"/> Ceiling Fan(s)	<input type="checkbox"/> Attic Fan(s)	<input type="checkbox"/> Exhaust Fan(s)
<input type="checkbox"/> Central A/C	<input type="checkbox"/> Central Heating	<input type="checkbox"/> Wall/Window Air Conditioning
<input type="checkbox"/> Plumbing System	<input type="checkbox"/> Septic System	<input type="checkbox"/> Public Sewer System
<input type="checkbox"/> Patio/Decking	<input type="checkbox"/> Outdoor Grill	<input type="checkbox"/> Fences
<input type="checkbox"/> Pool	<input type="checkbox"/> Sauna	<input type="checkbox"/> Spa <input type="checkbox"/> Hot Tub
<input type="checkbox"/> Pool Equipment	<input type="checkbox"/> Pool Heater	<input type="checkbox"/> Automatic Lawn Sprinkler System
<input type="checkbox"/> Fireplace(s) & Chimney (Wood-burning)		<input type="checkbox"/> Fireplace(s) & Chimney (Mock)
<input type="checkbox"/> Natural Gas Lines		<input type="checkbox"/> Gas Fixtures
<input type="checkbox"/> Liquid Propane Gas	<input type="checkbox"/> LP Community (Captive)	<input type="checkbox"/> LP on Property
Garage: <input type="checkbox"/> Attached	<input type="checkbox"/> Not Attached	<input type="checkbox"/> Carport
Garage Door Opener(s):	<input type="checkbox"/> Electronic	<input type="checkbox"/> Controls
	<input type="checkbox"/> Gas	<input type="checkbox"/> Electric
Water Heater: <input type="checkbox"/> City	<input type="checkbox"/> Well	<input type="checkbox"/> MUD
Water Supply: <input type="checkbox"/> City		<input type="checkbox"/> Co-op
Roof Type: _____	Age: _____	(approx.)

Are you (Seller) aware of any of the above items that are not in working condition, that have known defects, or that are in need of repair?  Yes  No  Unknown. If yes, then describe. (Attach additional sheets if necessary): \_\_\_\_\_

TREC No. 09-11



# Well Disclosure Request CUWCD form

- CUWCD Form
- Requesting Assistance
- No Fees
- Advice prior to Sale
- Support Services

**Well Disclosure Form**

Address: \_\_\_\_\_

Bell CAD Property ID: \_\_\_\_\_  
CUWCD Well ID: \_\_\_\_\_

Clearwater Underground Water Conservation District (CUWCD) is the groundwater conservation district who has full regulatory responsibility over groundwater production, permitting of wells, proper well construction, well registration, and private property rights protection associated with groundwater in Bell County. The District has a mission to develop and implement an efficient, economical, and environmentally sound groundwater management program to protect and enhance the water resources within Bell County.

If the property is in an area where the sole source of domestic water comes from groundwater, it is the Seller's (Y/N) Buyer's (Y/N) responsibility to contact CUWCD to discuss if the well is in compliance with the district regarding all issues associated with groundwater availability, construction standards, replacement well options, and drought related recommendations by the District. General District information regarding CUWCD's authority, rules and recommended guidelines can be found on our website: <http://www.cuwcd.org>

CUWCD recommends that all wells be inspected during the contract period. Inspections on-behalf of the Buyer, should be made by a TDLR Licensed Well Driller and/or TDLR Licensed Pump Installer. For a complete list of TDLR licensed well inspectors, please visit our website: <http://www.cuwcd.org/water-well-drillers-and-pump-installers/> or contact the CUWCD office at 254-933-0120.

Inspections are three part:

- 1) Well Head Inspection;
- 2) Full well inspection, includes: electrical, pump depth, pump saver, static water level, total depth of the well, formation the well is completed too;
- 3) Full water quality analysis by a NELAP Certified Lab. This level of inspection is not required but recommended. CUWCD does provide free water quality screening for all registered wells in Bell County. The district is not a certified lab under NELAP standards.

Contact Information:  
Physical Address: 700 Kennedy Court  
Belton, TX 76513  
Phone: 254-933-0120  
Hours: Monday - Friday 8a-5p

Mailing Address: P.O. Box 1989  
Belton, TX 76513  
Website: <http://www.cuwcd.org>

is the Seller aware of any known issue with the well's regulatory status or operational condition?  
Yes/No \_\_\_\_\_ if yes, describe \_\_\_\_\_

Buyer \_\_\_\_\_ Date \_\_\_\_\_  
Seller \_\_\_\_\_ Date \_\_\_\_\_

Buyer \_\_\_\_\_ Date \_\_\_\_\_  
Seller \_\_\_\_\_ Date \_\_\_\_\_

C.U.W.C.D. Well Disclosure Form  
January 2016



Every drop counts!

# Why Site Inspection?

- Well Head Conditions?
- Repairs needed?
- Septic distanced?
- Well disinfection?
- Water Quality Screening-free



# Issues and/or Concerns

*Are GCDs doing our jobs?*

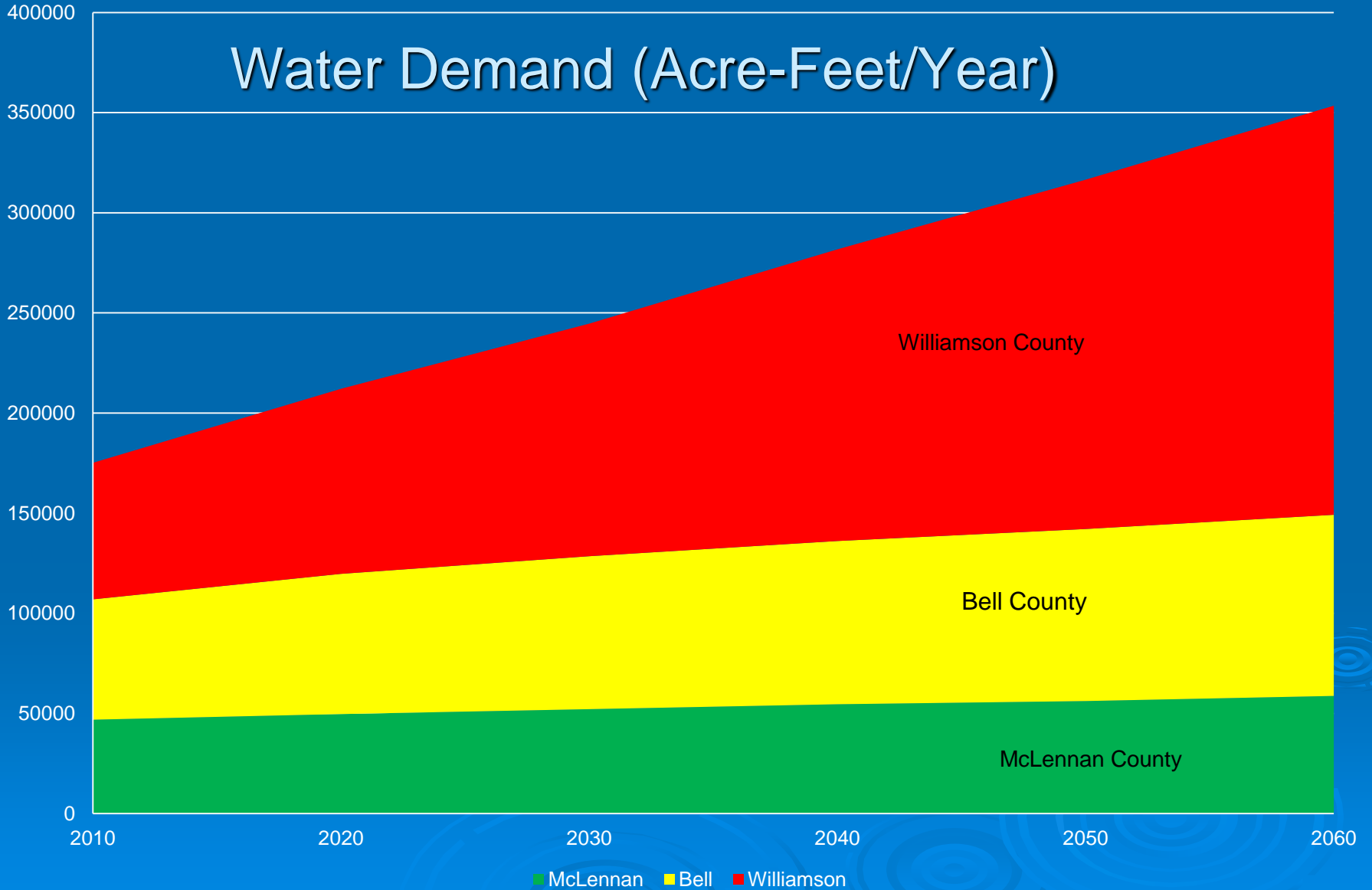
*Who do we answer to?*



- Accountability to SAO
- Accountability to TCEQ
- Accountability to TWDB
- Accountability to Legislative Body
- Accountability to Local Citizens
- Balancing Act to Protect Property Rights
- Expectation to Provide Solutions



# Issues Impacting Bell County



# Issues Impacting the District

- Conservation (Society Change)
- Water Availability vs Population Growth
- Under Managed Groundwater Areas
- Legislative Uncertainty
- Well Drillers & Pump Installers
- New Subdivision Plats



*Every drop counts!*

# Q & A

