Clearwater Underground Water Conservation District
P.O. Box 1989, Belton, Texas 76513
Phone: 254/933-0120 Fax: 254/933-8396
www.cuwcd.org

Every drop counts!

October 28, 2015

Dr. Sanjeev Kalaswad (VIA Email: sanjeev.kalaswad@twdb.texas.gov)
Director of Conservation & Innovative Water Technologies
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711-3231

Dear Dr. Kalaswad,

The Clearwater Underground Water Conservation District (CUWCD) is pleased to offer this public input on House Bill 30. The legislation directs the Texas Water Development Board (TWDB) to identify and designate brackish groundwater production zones and work with groundwater conservation districts (GCD's) and stakeholders when identifying and designating brackish groundwater production zones.

Dr. Robert Mace's power point presentation at the public hearing on October 26, 2015 indicated that in the first year, the TWDB will focus on the Blaine, Carrizo-Wilcox, Gulf Coast and Rustler aquifers. In year two, the focus would be on the Blossom, Nacatoch, and the Trinity aquifers.

CUWCD, manages the Trinity Aquifer and its three production layers in our jurisdiction known as the Glen Rose, Hensell, and Hosston. CUWCD is the repository of current aquifer water quality data from the entire Trinity Aquifer system in our jurisdiction. All three layers have "*significant use*" for domestic, livestock, mining, agriculture and public water supply *(see attached appendix #1: October 2015 CUWCD Trinity Status Report, appendix #3:2015 Well Report by Source Aquifer and the link to CUWCD Annual Report 2014 http://www.cuwcd.org/public-records/cuwcd-annul-report/)*

The in-depth geochemistry analysis of TDS levels in all three layers by our district (*2004 to present, appendix #4: CUWCD Historical WQ Screening*) provide insight that all Trinity Aquifer groundwater users in Bell County experience and expect levels to exceed 1,000 ppm. Ranges documenting TDS levels of 1,000 to 6,000 ppm are a common place, depending on the location of the wells relative to their location in the outcrop or downdip of the aquifer. We encourage the TWDB to utilize our submittals once they have reached the Groundwater Resource Division to avoid redundancy and duplication of information necessary to complete the HB30.

The question of "*significant impact*" in the Trinity Aquifer is plain and simple when all permit holders and exempt well owners with wells completed in the Trinity Aquifer currently utilize and depend on groundwater from all three layers for "*beneficial use*" defined under Chapter 36. Any amount of groundwater use from this source aquifer that is provided "*special relaxed oversight*"

and "*untethered use*" would improperly take protection of private property rights and historic use from current well owners and operators thus negating all protection and conservation of the resource in Bell County. This significant investment and intended use would bring severe economic burden to most users, especially the public water supply segment and their conjunctive use strategies which have been in place for many years. These strategies are well documented in both the 2012 State Water Plan and are again memorialized in the 2016 Region G WWP.

CUWCD also manages the Northern Segment of the Edwards BFZ Aquifer (*see appendix #2: October 2015 CUWCD Edwards Aquifer Status Report*), located in our jurisdiction, and is a primary resource of groundwater for public water supply (Jerrell Schwertner Water Supply Corporation and Salado Water Supply Corporation), domestic use, livestock, business, and mining industry. CUWCD is no different than the Barton Springs Edwards Aquifer Conservation District and the Edwards Aquifer Authority, by being encumbered with federal oversight and threats to the Salado Salamander necessitating protection of spring flow at the Salado Springs Complex and protective measures provided by the District's current DFC to reduce the threats of low flow and water quality. For this reason, it is our opinion that the northern segment of the Edwards BFZ fresh water outcrop, freshwater downdip and the identified saline zone within the districts jurisdiction should not be designated for potential brackish groundwater production zones. We strongly believe we should be treated the same as the two groundwater regulatory entities who have been exempted by HB30. This would document the importance of a fair and impartial evaluation of the Edwards Aquifer as a whole.

CUWCD is willing and able to support our comments with the best available scientific research developed, in-house water quality screening, source aquifer status reports, annual production reports by permit holders, and exempt estimates of use for the last five years. CUWCD believes that we have sufficient evidence necessary to assist the TWDB to better understand that both aquifers in our jurisdiction are a "*significant source*" of groundwater for beneficial use within our jurisdiction.

CUWCD respects that prior to identifying and designating brackish groundwater production zones, the TWDB is appropriately requesting input on the following questions from GCD's and stakeholder interests:

- How should the TWDB define "significant impact"?
- How should the TWDB define "separated by hydrogeological barriers sufficient to prevent significant impacts"?
- How should the TWDB define significant source of water supply for municipal, domestic or agricultural purposes?; and
- Is there a distance from existing use that a brackish groundwater production zone could be designated?

Because of the vastly known differences between aquifer conditions and regional characteristics across the state, and the subjectivity of the aforementioned questions, CUWCD strongly recommends the TWDB seek to define of what constitutes a "*significant impact*", "*significant source*", or a sufficient "*definition of separation of a hydrogeological barrier*" on an area by area basis with direct input from local GCD's as well as local municipal, rural water suppliers, domestic and agricultural stakeholders located within a proposed brackish groundwater zone prior to final

designation. We adamantly believe there is not a one-size fits all definition to the proposed questions.

Additionally, CUWCD strongly recommends the TWDB hold a minimum of two stakeholder meetings in each of the proposed areas prior to the final designation of a zone in order to receive local input from residents and landowners as it relates to the defining questions, the economic impact of designating a brackish groundwater production zone and the impact if any to private property rights.

We believe if the TWDB reaches out to local residents and landowners in their respective home areas, and afford them the ability to provide input in the identification and designation process of brackish groundwater production zones, this will incentivize the utilization of brackish groundwater furthermore reducing the use of fresh groundwater resources.

CUWCD sees the added importance of TWDB effectively reaching out to GCD's for groundwater information which can be incorporated in the facilitation of identifying and designating brackish groundwater production zones. GCD's have a wealth of data and information, evidenced by our submittals with these comments. We strongly recommend the TWDB utilize direct input from local GCD's and input from local stakeholder groups as they work to identify and designate brackish groundwater production zones.

Thank you for the opportunity and your consideration of these comments. If you have any questions please contact us.

Sincerely,

Dirk Aaron
dirk.aaron@clearwaterdistrict.org
General Manager
Clearwater Underground Water Conservation District

Appendix #1

October 2015
CUWCD
Trinity Aquifer Status Report

DFC analysis over time (2000-Present) Modeled Available Groundwater			*HEUP and OP Permit Analysis* Relative to the Modeled Available Groundwater					*2015 YTD Prod. Jan-Sept* ***604.15 ac-ft 21.8%***	*Pending Applications*		*Exempt Well Reservations*		
		Current							**Available**	Pending			
Trinity Aquifer (by layer)	***DFC Adopted*** ***Average drawdown*** * (by layer)	**Trend DFC** ** 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	***0.71 ft*** *2000-15*	880		61.90	120.15	**182.05**		**74.70**	**187.00**	0	**693**	**491**	202
Hensell (Middle)	***5.72 ft/yr*** 286 ft/50 yrs	***4.12 ft*** *2000-15*	1099		259.30	203.68	**462.98**		**87.11**	**88.02**	0	**548**	**386**	162
Hosston (Lower)	***6.38 ft/yr*** 319 ft/50 yrs	***3.45 ft*** *2000-15*	4993		1181.40	1665.66	**2847.06**		**604.84 (14) (604.15 YTD15)**	**2693.94**	**** 1945.00	**178**	**52**	126
Total			**7068**		1502.60	1173.97	**2766.09**		**766.96 ac-ft (27.73%)**	**2882.91**	**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 #2

October 2015
CUWCD
Edwards BFZ Aquifer Status Report

Edwards (BFZ) Aquifer Status Report – October 2015

DFC analysis over time (2000-Present)	*HEUP and OP Permit Analysis*	*2015 YTD Prod. Jan-July*	*Pending Applications*	*Exempt Well Reservations*
Modeled Available Groundwater	*Relative to the Modeled Available Groundwater*	***1313.75 ac-ft 52.37%***		

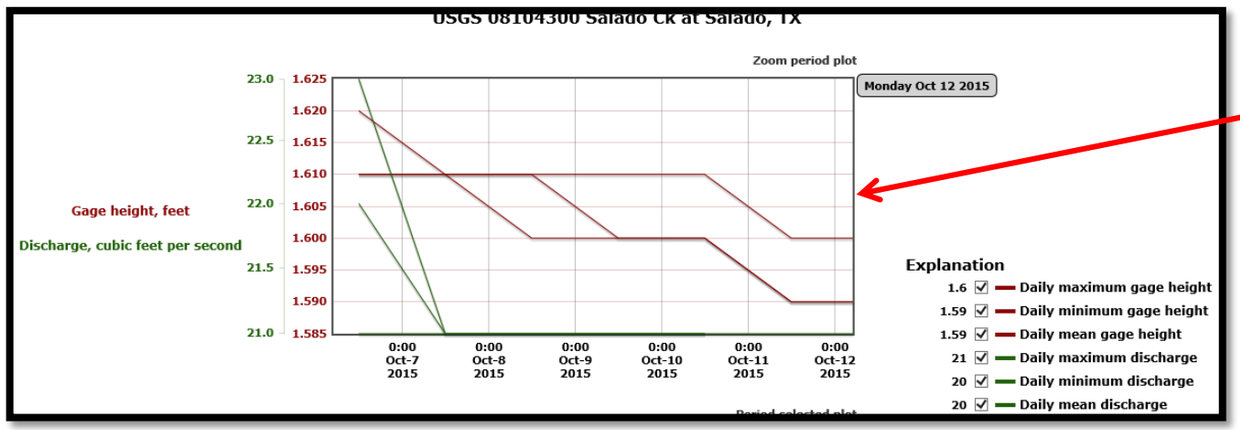
	DFC Adopted** * ***Minimum Spring Flow	**Status of DFC** ** Current / Low	**MAG** Ac/ft***	HEUP ac-ft	OP ac-ft	**Total Permitted ac-ft**	**2014 Actual Production**	**Available for Permitting ac-ft**	**** Pending Applications ac-ft**	Exempt Well Reservation by layer	Exempt Well Use Estimation	**Available Exempt Use**
Edwards (BFZ) Aquifer	**100 ac-ft or 1.68 cfs** per month	***1273 ac-ft*** *10/13/2015* ***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 Aug 30st – Sept 3th is 30.4 CFS = 1809 ac-ft/month

Five day average for October 9st – Oct 13 rd is 21.4 CFS = 1273 ac-ft/month

Appendix #3

2015 CUWCD
Well Report by Source Aquifer

Clearwater Underground Water Conservation District

P.O. Box 1989, Belton, Texas 76513
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October 2015
CUWCD Active Well Report by Aquifer

Edwards BFZ	Exempt Wells	731	
Edwards BFZ	Permitted Wells (non-exempt)	49	
Upper Trinity	Exempt Wells	553	
Upper Trinity	Permitted Wells (non-exempt)	8	
Middle Trinity	Exempt Wells	614	
Middle Trinity	Permitted Wells (non-exempt)	29	
Lower Trinity	Exempt Wells	114	
Lower Trinity	Permitted Wells (non-exempt)	21	
Active Wells Registered	**Total**	**2119**	
***Total wells registered**	**Data Base Total: 5117**		

**represents all wells registered with the district since 2002 and recorded as active, inactive plugged and recorded in source aquifers*

Sincerely,

Dirk Aaron
General Manager
Clearwater UWCD

Appendix #4

CUWCD
2005 - Present
Historical Water Quality Summary

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)
FY07																		
10/10/2006	E-02-2136G	30.966871	-97.803293	836.81	450	Middle Trinity	Absence	Absence	320	1641	1147	*2.30	0	5.80	0.006	7.6	0.27	*80
1/9/2007	E-02-144G	31.163626	-97.286074	632.04	30	Austin Chalk	Presence	Absence	300	415	309	0.60	320	2.30	0.001	7.3	0.40	15
5/30/2007	E-02-203G	30.97072	-97.501188	616.41	150	Edwards (BFZ)	Presence	Absence	260	429	243	0.40	300	34.20	0.030	7.5	0.37	18
5/30/2007	E-04-070P	30.940833	-97.608333	721.82	60	Edwards (BFZ)	Absence	Absence	400	1165	394	1.90	100	1.60	0.012	7.7	0.04	*80
6/12/2007	E-02-144G	31.163626	-97.286074	632.04	30	Austin Chalk	Absence	Absence	undetermined	461	345	0.60	280	28.90	0.011	7.4	0.84	6
7/11/2007	E-03-344P	31.04732	-97.86044	1043.79	540	Middle Trinity	Absence	Absence	360	2430	1210	2.10	760	2.30	0.001	7.6	0.11	*80
7/17/2007	E-02-240G	31.052862	-97.562531	810.97	140	Edwards Equivalent	Presence	Presence	420	726	394	0.30	480	14.50	0.008	7.2	0.38	21
7/17/2007	E-02-049P	30.924259	-97.579129	695.37	120	Edwards (BFZ)	Presence	Presence	360	557	338	0.20	460	20.10	0.008	7.5	0.51	19
7/17/2007	E-02-2847G	31.000962	-97.533418	693.57	200	Edwards (BFZ)	Presence	Absence	300	449	270	0.70	360	12.80	0.002	7.5	0.31	12
7/17/2007	E-02-2521P	30.92352	-97.577781	697.96	120	Edwards (BFZ)	Absence	Absence	300	493	263	0.10	340	14.60	0.003	7.7	0.15	9
7/17/2007	E-02-2425G	30.978197	-97.834913	832.62	Ukn	Middle Trinity	Presence	Absence	420	1058	647	2.10	80	1.70	0.000	7.8	0.05	*80
7/17/2007	E-02-470G	31.051378	-97.528621	759.48	120	Edwards Equivalent	Presence	Absence	360	714	422	0.40	440	18.40	0.003	6.4	0.02	56
7/17/2007	E-02-757G	30.975988	-97.567231	745.06	Ukn	Edwards (BFZ)	Presence	Presence	340	491	293	0.20	420	14.30	0.023	7.4	0.10	12
7/24/2007	E-02-002G	31.026395	-97.478515	631.97	85	Edwards Equivalent	Absence	Absence	300	442	283	1.30	340	6.70	0.004	7.7	0.11	22
7/24/2007	E-02-2848G	30.9889	-97.838737	754.67	Ukn	Middle Trinity	Presence	Absence	400	1110	717	1.90	240	1.20	0.006	7.8	0.08	*80
7/24/2007	E-02-2849G	30.989183	-97.838665	754.77	Ukn	Middle Trinity	Absence	Absence	360	1441	926	2.20	480	12.80	0.005	7.5	0.24	*80
7/24/2007	E-02-1483G	30.921319	-97.377381	520.65	30	Alluvium	Presence	Presence	380	663	389	0.50	undetermined	undetermined	0.049	7.0	0.55	62
7/24/2007	E-02-313G	30.928913	-97.531743	653.28	200	Edwards (BFZ)	Absence	Absence	320	458	294	1.10	320	16.30	0.004	7.5	0.09	21
7/24/2007	E-02-2715G	30.982156	-97.836754	810.43	400	Lower Trinity	Presence	Absence	400	995	643	2.20	60	5.40	0.002	7.8	0.15	*80
7/24/2007	E-06-047P	30.929216	-97.605167	745.83	870	Middle Trinity	Absence	Absence	360	1082	647	2.00	80	9.90	0.007	7.8	0.21	*80
7/24/2007	E-02-2781G	30.881963	-97.581099	767.1	137	Edwards (BFZ)	Presence	Absence	280	395	243	0.30	280	31.30	0.008	7.6	0.07	14
7/24/2007	E-02-3257G	30.906664	-97.369858	530.24	30	Alluvium	Presence	Presence	360	483	305	0.00	400	1.40	0.079	7.2	0.10	21
7/24/2007	E-02-3583G	31.205929	-97.458516	689.21	Ukn	Edwards Equivalent	Presence	Presence	400	676	436	0.20	400	75.00	0.008	7.0	0.13	23
7/24/2007	E-02-2736G	30.994536	-97.49279	556.16	120	Edwards (BFZ)	Presence	Presence	320	443	293	1.80	340	1.70	0.012	7.7	0.11	34
7/24/2007	E-02-537G	31.242798	-97.563081	680.13	735	Middle Trinity	Absence	Absence	380	2260	1473	2.00	260	10.10	0.010	7.7	0.32	1
7/24/2007	E-02-3281G	30.913827	-97.679459	838.65	700	Upper Trinity	Not Tested	Not Tested	360	1758	1175	2.10	260	6.70	0.192	7.6	0.21	*80
7/25/2007	E-02-1149G	31.024602	-97.69775	796.86	520	Middle Trinity	Presence	Absence	300	447	320	0.20	400	5.90	0.008	NT	0.05	26
7/25/2007	E-07-043G	30.938087	-97.807452	906.22	550	Middle Trinity	Presence	Absence	380	1285	806	2.10	220	1.10	0.005	7.7	0.05	*80
7/25/2007	E-02-2641G	30.919674	-97.378282	517.64	Ukn	Alluvium	Presence	Presence	280	540	338	0.00	300	5.70	0.002	NT	0.19	33
7/31/2007	E-03-354G	30.981721	-97.636387	881.7	150	Edwards (BFZ)	Absence	Absence	220	629	394	0.50	300	1.90	0.000	7.5	0.13	*80
8/7/2007	E-03-430P	30.932053	-97.598313	723.74	882	Middle Trinity	Presence	Absence	440	1098	682	1.80	80	0.50	0.108	8.0	0.18	*80
8/7/2007	E-02-2035G	30.911579	-97.773711	878.98	Ukn	Middle Trinity	Presence	Absence	460	1430	990	2.20	300	1.50	0.003	7.6	0.09	*80
8/14/2007	E-02-226G	31.021616	-97.459591	576.77	Ukn	Alluvium	Presence	Absence	NT	437	268	1.80	340	1.10	0.001	7.8	0.03	12
8/14/2007	E-02-227G	31.021126	-97.459803	579.47	Ukn	Alluvium	Presence	Absence	420	431	274	1.90	320	0.00	0.004	7.8	0.07	11
8/28/2007	E-02-129G	30.967903	-97.792764	799.18	470	Middle Trinity	Absence	Absence	460	1117	696	*2.3	40	0	0.270	8.1	0.06	*80
9/19/2007	E-02-144G	31.163626	-97.286074	632.04	30	Austin Chalk	Inconclusive	Absence	undetermined	585	304	0.60	320	2	0.000	7.6	0.12	9
9/27/2007	E-02-129G	30.967903	-97.792764	799.18	470	Middle Trinity	Absence	Absence	440	NT	NT	2.20	120	2	0.000	7.9	0.23	*80
9/27/2007	E-02-943G	30.983811	-97.785364	716.71	460	Lower Trinity	Absence	Absence	460	NT	NT	*2.3	80	1	0.007	7.9	0.20	*80
9/27/2007	E-13-051P	30.890316	-97.573783	751.63	200	Edwards (BFZ)	Absence	Absence	320	NT	NT	0.20	360	5	0.002	7.3	0.14	9
9/28/2007	E-02-2807G	30.997679	-97.492002	556.13	100	Edwards (BFZ)	Absence	Absence	360	NT	NT	1.10	400	1	0.008	7.4	0.02	25
FY08																		
10/3/2007	E-02-107G	30.902829	-97.664231	784.29	90	Edwards(BFZ)	Presence	Absence	400	517	302	0.10	420	0.50	0.006	7.9	0.14	4
10/3/2007	E-02-670G	31.091989	-97.46402	583.92	550	Edwards Equivalent	Presence	Absence	440	608	354	1.00	500	0.90	0.005	7.6	0.14	9.00
10/3/2007	E-05-075P	31.047483	-97.855558	998.63	555	Middle Trinity	Absence	Absence	320	1986	1182	2.30	480	0.70	0.003	7.7	0.09	80
10/9/2007	E-02-424G	30.907368	-97.675262	855.42	790	Middle Trinity	Absence	Absence	460	2860	1803	2.30	440	1.20	0.000	7.7	0.05	80
10/9/2007	E-03-009G	31.042313	-97.59262	852.41	890	Middle Trinity	Absence	Absence	N/A	6530	4400	2.30	340	35.00	0.375	7.8	0.04	80
12/4/2007	E-02-670G	31.091989	-97.46402	583.92	550	Edwards Equivalent	Absence	Absence	400	613	443	1.00	40	0.80	0.015	7.3	0.10	9
12/18/2007	E-02-3574G	30.946321	-97.426241	549.55	30	Austin Chalk	Presence	Absence	320	576	296	0.50	380	1.50	0.004	7.2	0.06	17
1/15/2008	E-02-1205G	30.962663	-97.523521	602.83	120	Edwards(BFZ)	Presence	Absence	400	417	329	1.80	420	0.90	0.003	7.3	0.06	31
1/15/2008	E-02-144G	31.163626	-97.286074	632.04	30	Austin Chalk	Absence	Absence	320	376	297	0.70	320	0.00	0.000	7.3	0.19	12
1/29/2008	E-08-003P	30.994167	-97.718148	821.99	750	Lower Trinity	Absence	Absence	540	1958	1408	2.30	80	1.10	0.000	7.9	0.05	80
2/12/2008	E-08-003P	30.994167	-97.718148	821.99	750	Lower Trinity	Presence	Absence	520	1861	1413	2.30	120	0.10	0.001	8.0	0.10	80
2/13/2008	E-06-047P	30.929216	-97.605167	745.83	870	Middle Trinity	Not Tested	Not Tested	380	946	632	0.00	100	0.60	0.013	7.9	0.08	80
5/20/2008	E-08-003P	30.994167	-97.718148	821.99	750	Lower Trinity	Presence	Absence	640	2620	1558	2.30	140	1.90	0.005	8.1	0.06	80
6/10/2008	E-02-313G	30.928913	-97.531743	653.28	200	Edwards(BFZ)	Absence	Absence	340	467	285	1.00	360	4.20	0.003	7.6	0.07	15
6/24/2008	N2-05-003P	31.028433	-97.760016	906.29	615	Middle Trinity	Presence	Absence	420	1646	1062	2.30	80	0.00	0.000	8.6	0.00	80
7/1/2008	E-02-1153P	30.941	-97.497833	653.36	340	Edwards (BFZ)	Presence	Absence	320	1072	763	2.30	140	2.50	0.000	7.7	0.07	80
7/29/2008	E-02-032G	30.983623	-97.470612	577.91	75	Edwards (BFZ)	Presence	Absence	440	1552	1032	2.30	100	1.20	0.001	7.9	0.07	80
FY09																		
1/30/2009	E-09-007G	30.955872	-97.2601915	602.52	94	Austin Chalk	Not Tested	Not Tested	100	19080	11970	1.40	960	0.00	0.002	8.3	0.00	80
1/30/2009	N1-08-001P	31.020144	-97.8786659	902.03	500	Lower Trinity	Absence	Absence	280	1943	1483	1.90	460	1.10	0.004	7.50	0.09	80
3/24/2009	E-05-092P	30.942982	-97.5976337	723.17	880	Middle Trinity	Presence	Absence	340	1157	709	2.10	80	1.00	0.108	N/A	0.02	80
4/14/2009	N2-08-004P	30.92545	-97.5036103	721.96	430	Edwards (BFZ)	Presence	Presence	320	921	648	2.30	160	1.50	0.011	7.7	0.08	80
5/5/2009	N2-09-001P	31.200237	-97.4384102	733.53	1000	Middle Trinity	Presence	Presence	480	3670	2870	2.20	440	0.00	0.000	7.8	0.03	80
6/4/2009	E-09-023G	31.076681	-97.7599415	997.57	unk	Upper Trinity	Presence	Absence	340	2930	1987	2.30	220	0.50	0.004	7.9	0.22	80
8/10/2009	M-09-002P	31.07	-97.9	1012.35	629	Lower Trinity	Not Tested	Not Tested	280	5040	2950	1.60	320	0.00	0.080	8.1	0.29	80
8/10/2009	M-09-001P	31.07	-97.9	1012.03	469	Middle Trinity	Not Tested	Not Tested	160	2830	1667	2.30	100	1.00	0.012	8.7	0.14	80
8/10/2009	M-10-001P	31.11	-97.82	923.15	450	Upper Trinity	Not Tested	Not Tested	300	2490	1441	2.20	740	0.00	0.000	7.6	0.05	80
8/18/2009	E-09-036G	31.051249	-97.1718376	475.61	39	Alluvium	Presence	Absence	280	2210	1589	N/A	1480	8.40	0.000	7.2	0.03	80
8/25/2009	E-02-537G	31.242798	-97.5630811	680.13	735	Middle Trinity	Presence	Absence	340	1865	1425	N/A	280	1.10	0.017	8.0	0.22	80
8/25/2009	E-02-832G	31.20299	-97.4405103	711.2	192	Edwards Equivalent	Presence	Presence	220	413	235	N/A	280	0.00	0.006	7.3	0.09	47
8/25/2009	E-09-038G	31.055123	-97.5974696	747.17	unk	Middle Trinity	Absence	Absence	400	1585	1202	N/A	100	0.40	0.001	7.9	0.14	80
9/8/2009	E-02-016G	30.976237	-97.3472463	465.55	45	Alluvium	Presence	Absence	340	445	276	N/A	400	4.30	0.003	7.2	0.08	9
9/8/2009	E-02-144G	31.163626	-97.2860747	632.04	30	Austin Chalk	Presence	Absence	320	300	253	0.51	320	1.10	0.003	7.2	0.15	11
9/23/2009	E-02-3141G	31.014413	-97.3999867	491.28	30	Alluvium	Presence	Absence	420	724	477	0.30	200	7.30	0.008	7.1	0.3	17
9/23/2009	E-02-144G	31.163626	-97.2860747	632.04	30	Austin Chalk	Presence	Absence	240	410	284	0.70	320	1.20	0.006	7.3	0.45	10
9/23/2009	E-02-1364G	30.889382	-97.7320691	1023	800	Lower Trinity	Absence	Absence	320	1718	1262	2.30	400	1.50	0.015	7.7	0.39	80
FY10																		
10/20/2009	E-02-144G	31.163626	-97.286074	632.04	30	Austin Chalk	Absence	Absence	320	386	284	0.60	320	0.10	0.000	7.0	0.14	10
10/20/2009	E-02-728G	30.912691	-97.563682	689.13	unk	Edwards (BFZ)	Absence	Absence	300	356	274	0.50	340	2.20	0.002	7.5	0.11	10
12/22/2009	E-02-3415G	31.074784	-97.461454	588.23	unk	Edwards Equivalent	Absence	Absence	420	537	377	0.50	420	4.50	0.000	7.10	0.29	18
7/13/2010	E-02-612G	30.962809	-97.608061	792.23	860	Middle Trinity	Presence	Absence	340	587	357	0.30	400	0.50	0.010	7.6	0.04	N/A
8/31/2010	E-09-057P	30.933285	-97.601105	741.42	892	Middle Trinity	Absence	Absence	540	3290	2200	2.30	460	0.90	N/A	7.6	0.11	N/A
9/15/2010	E-02-1984G	31.084855	-97.562059	670.61	260	Upper Trinity	Presence	Absence	440	3080	2070	2.30	420	6.80	N/A	8.1	0.28	N/A
9/15/2010	E-02-670G	31.091989	-97.46402	583.92	550	Edwards Equivalent	Presence	Absence	120	124	81	0.30	100	0.70	0.004	7.5	0.10	23
9/29/2010	E-03-411P	30.974833	-97.4975	606.17	160	Edwards (BFZ)	Presence	Absence	320	772	546	2.30	140	0.70	N/A	7.5	0.09	N/A
FY11																		
11/9/2010	E-02-3141G	31.01441314	-97.399986	491.28	30	Alluvium	Presence	Absence	260	249	0.30	40.00	3	3	0.002	6.8	0.18	16
6/14/2011	E-02-267G	30.98758709	-97.431679	487.41	430	Edwards Equiv.	Presence	Absence	400	4	3	*2.3 (limit)	400	0.0	0.001	7.6	0.05	*80 (limit)
FY12																		
10/18/2011	E-02-382G	30.989118	-97.484735	609.31	180	Edwards (BFZ)	Absence	Absence	440	803	538	*2.3 (limit)	260	1.6	0.000	7.7	0.12	*80(limit)
10/25/2011	E-02-001G	30.948738	-97.456695	576.91	615	Upper Trinity	Absence	Absence	460	2	1489	*2.3 (limit)	180	2.4	0.008	8.1	0.10	*80(limit)
11/8/2011	E-02-1957G	30.984607	-97.467463	570.33	212	Austin Chalk	Absence	Absence	380	1314	926	*2.3 (limit)	120	2.3	0.059	8.0	0.17	*80(limit)
11/22/2011	E-02-382G	30.989118	-97.484735	609.31	180	Edwards (BFZ)	Presence	Absence	360	790	547	*2.3 (limit)	200	0.7	0.003	7.7	0.20	*80(limit)
12/6/2011	E-03-418P	30.920316	-97.692547	847.83	760	Middle Trinity	Presence	Absence	360	584	412	1.30	200	1.3	0.001	8.0	0.18	*80(limit)
12/20/2011	E-02-382G	30.989118	-97.484735	609.31	180	Edwards (BFZ)	Absence	Absence	340	897	647	*2.3 (limit)	240	2.1	0.005	7.5	0.17	*80(limit)
1/31/2012	E-02-1399G	31.036186	-97.194568	483.08	25	Austin Chalk	Absence	Absence	300	484	278	0.7	480	5.3	0.015	7.3	0.36	*80(limit)
5/9/2012	E-12-017G	30.889011	-97.706079	971.59	840	Middle Trinity	Absence	Absence	260	926	709	2	360	1.1	0.001	7.5	0.21	*80(limit)
6/26/2012	E-03-354G	30.981721	-97.636387	881.7	150	Edwards (BFZ)	Absence	Absence	400	1291	850	*2.3 (limit)	180	0.4	0.003	7.9	0.23	*80(limit)
6/28/2012	E-05-082P	30.984816	-97.6466	762.58	660	Upper Trinity	Presence	Absence	360	1715	1018	*2.3 (limit)	200	0.9	0.005	8	0.36	*80(limit)
8/7/2012	E-10-022P	31.067918	-97.512966	714.58	870	Middle Trinity	Absence	Absence	500	2	1738	*2.3 (limit)	240	0	0	7.8	0.19	*80(limit)
FY13																		
11/27/2012	E-06-038P	31.157899	-97.481516	684.8	900	Middle Trinity	absence	Absence	380	2010	1280	2.2	120	0	0.1	8.1	0.09	*80(limit)
1/16/2013	N1-08-002P	31.172779	-97.447499	660.4	940	Middle Trinity	Presence	Absence	700	4360	3160	*2.3(limit)	380	1.1	0.008	7.9	0.1	*80(limit)
2/26/2013	E-03-349G	31.010795	-97.468067	514.67	110	Edwards (BFZ)	absence	Absence	300	434	321	1.5	340	8.6	0.006	8.1	0.14	30
3/11/2013	E-02-670G	31.091989	-97.46402	583.92	550	Edwards Equivalent	absence	Absence	280	489	326	0.08	60	0.09	0.011	7.7	0.13	5
4/23/2013	E-08-019P	31.021639	-97.43675	582.69	380	Edwards Equivalent	absence	Absence	380	4020	2910	*2.3(limit)	280	1.8	0	7.8	0.08	*80(limit)
6/24/2013	E-13--061G	31.105237	-97.249334	512.83	20	Alluvium	Presence	Presence	200	491	329	1.3	200	9.6	0.001	8.3	0.21	*80(limit)
7/18/2013	E-02-382G	30.989118	-97.484735	609.31	180	Edwards (BFZ)	Presence	Presence	300	931	626	*2.3(limit)	200	1.5	0.005	7.8	0.1	*80(limit)
7/18/2013	E-02-427G	30.988995	-97.482137	540.09	100	Edwards (BFZ)	Presence	Presence	340	1254	763	*2.3(limit)	140	0.3	0.005	8.6	0.07	*80(limit)
7/18/2013	E-02-428G	30.987407	-97.48245	605.07	180	Edwards (BFZ)	Presence	Presence	320	1113	643	*2.3(limit)	180	0.3	0.004	7.7	0.12	*80(limit)
8/30/2013	E-09-057P	30.933285	-97.601105	741.42	892	Middle Trinity	Did not Test	Did not Test	400	2870	1526	*2.3(limit)	20	0.7	0.002	8.5	0.33	*80(limit)
9/5/2013	E-02-370G	30.996738	-97.336685	505.79	20	Austin Chalk	Presence	Presence	280	570	390	0.4	340	8.7	0.035	7.1	0.14	37
FY14																		

2/12/2014	E-13-015P	30.977583	-97.819361	828.36	605	Middle Trinity	Absence	Absence	460	2260.00	1167	*2.3 (limit)	100	1.0	0.006	8.1	0.20	
2/19/2014	E-05-107G	31.156344	-97.480873	695.59	444	Upper Trinity	Absence	Absence	360	1463	726	1.90	320	7.0	0.004	7.5	0.16	*80 (limit)
2/24/2014	E-02-2660G	31.157673	-97.476559	685.34	200	Edwards Equivalent	Absence	Absence	300	666	330	0.10	0	2.8	0.000	7.6	0.08	0
3/6/2014	E-04-008P	30.934124	-97.602258	741.46	870	Middle Trinity	Absence	Absence	320	1438	726	2.1	100	2.6	0.375	8.3	0.11	*80 (limit)
3/25/2014	E-02-315G	31.19976	-97.466024	701.88	940	Middle Trinity	Not Tested	Not Tested	500	6180	3280	*2.3 (limit)	360	0.6	0.006	8.0	0.20	*80 (limit)
3/25/2014	N2-09-001P	31.200237	-97.43841	733.53	1000	Middle Trinity	Not Tested	Not Tested	480	6070	3220	*2.3 (limit)	340	0.9	0.006	7.9	0.20	*80 (limit)
3/26/2014	E-13-020P	31.159611	-97.483166	660.46	870	Middle Trinity	Not Tested	Not Tested	400	3310	1699	2.20	200	0.6	0.003	8.0	0.22	*80 (limit)
3/27/2014	E-02-3349G	31.160045	-97.482595	655.53	450	Upper Trinity	Not Tested	Not Tested	420	3490	1802	2.20	200	1.2	0.003	8.0	0.13	*80 (limit)
3/27/2014	E-11-002P	31.16046	-97.471868	638.48	900	Middle Trinity	Not Tested	Not Tested	360	2520	1285	2.20	120	0.7	0.312	8.4	0.16	*80 (limit)
3/27/2014	E-13-031P	31.159183	-97.483133	660.96	880	Middle Trinity	Not Tested	Not Tested	400	2750	1388	2.20	120	0.6	0.051	8.0	0.15	*80 (limit)
4/4/2014	M-14-002P	30.885011	97.710292	987.61	884	Middle Trinity	Not Tested	Not Tested	320	1168.00	575	2.00	140	1.20	0.000	8.1	0.17	135
4/4/2014	M-14-001P	30.88549	-97.71023	984.29	110	Edwards (BFZ)	Not Tested	Not Tested	320	600	292	0.20	340	0.70	0.000	7.50	0.11	3
4/4/2014	M-14-001P	30.88549	-97.71023	984.29	110	Edwards (BFZ)	Not Tested	Not Tested	320	612	297	0.20	340	6.20	0.008	7.4	0.11	6.00
4/10/2014	E-02-349G	30.958324	-97.48426	532.42	207	Edwards (BFZ)	Presence	Presence	440	2190	1102	2.30	60	4.60	0.003	8.00	0.20	370
4/11/2014	E-14-014P	30.88418	-97.709975	994.05	90	Edwards (BFZ)	Not Tested	Not Tested	280	530	280	0.00	260	2.30	0.003	7.6	0.08	2
5/20/2014	E-14-027P	31.211033	-97.463866	661.02	910	Middle Trinity	Not Tested	Not Tested	not tested	5490	2880	-	-	-	-	-	-	-
5/20/2014	N1-08-002P	31.172779	-97.447499	660.4	940	Middle Trinity	Not Tested	Not Tested	not tested	6070	3210	-	-	-	-	-	-	-
6/5/2014	E-14-044P	31.211	-97.46385	661.28	unk	Upper Trinity	Not Tested	Not Tested	not tested	5970	3120	-	-	-	-	-	-	1092
6/5/2014	E-14-044P	31.211	-97.46385	661.28	930	Middle Trinity	Not Tested	Not Tested	not tested	2210	1116	-	-	-	-	-	-	203
6/9/2014	E-02-3141G	31.014413	-97.399986	491.28	30	Alluvium	Presence	Absence	360	755	370	0.30	260	5.20	0.003	7.70	0.35	24
7/31/2014	E-13-009P	30.974083	-97.479166	581.66	210	Edwards (BFZ)	Presence	Presence	360	2240	1098	2.20	120	3.10	0.002	7.90	0.20	234
8/14/2014	E-14-048G	30.910929	-97.670663	884.13	822	Middle Trinity	Absence	Absence	360	1303	654	2.10	120	1.00	0.004	7.90	0.16	90
8/19/2014	E-13-030P	30.990187	-97.539557	729.87	940	Middle Trinity	Not Tested	Not Tested	-	4690	2510	-	-	-	-	-	-	-
8/25/2014	N2-10-003P	30.990133	-97.501933	629.08	1010	Middle Trinity	Not Tested	Not Tested	320	1658	824	2.20	100	2.20	0.003	7.90	0.19	170
9/18/2014	E-14-053P	30.990205	-97.539589	729.87	980	Middle Trinity	Not Tested	Not Tested	-	1506	751	-	-	-	-	-	-	-
9/30/2014	M-13-007G	31.079828	-97.436412	519.24	1261	Lower Trinity	Not Tested	Not Tested	320	3310	1701	2.00	80	0.00	0.002	8.00	0.37	110
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
FY16																		
10/1/2015	E-05-107G	31.156344	-97.480873	695.59	444	Upper Trinity	Absence	Absence	420	1668	843	2.1	340	2.5	0.005	7.6	0.13	21
10/13/2015	E-15-051G	30.916252	-97.678795	818	735	Middle Trinity	Presence	Absence	400	3250	1677	2.2	320	1.8	0.007	7.8	0.12	720
10/15/2015	E-02-370G	30.996738	-97.336685	505.79	20	Austin Chalk	Presence	Absence	300	716	364	0.06	340	8.8	0.015	7.2	0.15	43