



State of the District - Staff's Annual Report to the Board for FY 2017-2018

COW CREEK GROUNDWATER CONSERVATION DISTRICT

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This report will summarize the Cow Creek Groundwater Conservation District's activities, water well information and management goals for FY 2017-2018 (October 1st, 2017 - September 30th, 2018).

Well Registrations

110 new water wells were drilled in FY 17-18

New wells completed are down 19% from FY 16-17, down 4% from FY 15-16, and down 28% from FY 14-15.

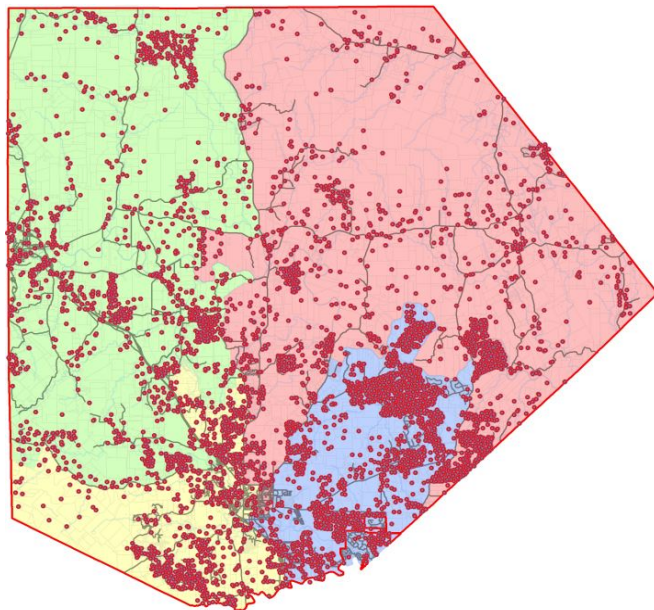
- 12** in District 1 (10.91%)
- 24** in District 2 (21.82%)
- 34** in District 3 (30.91%)
- 40** in District 4 (36.36%)

Of these **110** new wells, **102** were drilled for domestic use, **3** for livestock use, **1** for subdivision test use, **1** for irrigation use, **0** for public water system use, **0** for monitor well use, **3** for small business, and **0** well deepened. **17** existing wells were plugged.

95.45% of the new wells were drilled into the Middle Trinity Aquifer (**95** into the Cow Creek, **9** into the Hensell, and **1** into the Lower Glen Rose). The Upper Trinity (Upper Glen Rose) had **4** well completed into it, the Lower Trinity (Hosston) had **1** well completed into the formation, and the Fort Terret (Edwards) had **0** new wells completed.

21 existing wells were registered in FY 17-18 compared to 28 in FY 16-17, 34 in FY 15-16, 39 in FY 14-15, 53 in FY 13-14, 44 in FY 12-13, 58 in FY 11-12 and 86 in FY 10-11.

As of September 30th, 2018, the District had **8,155** registered wells.



Operating Permits for Non-exempt wells

The CCGCD currently has **164** wells that are producing under an operating permit issued by the District. As a combined total they are permitted for **4,889.60 acre feet**.

In FY 17-18 the CCGCD issued **two** new operating permits and renewed **4** existing operating permits, with **one** change in ownership. (management objective 1.1)

Below is a sample of actual meter readings from twenty of the District's permitted users:

Permittee	Gallons Pumped FY 17-18	Acre Feet Pumped	Gallons permitted	Acre Feet permitted	Utilized %
46 Crossing/Valero	462,580	1.42	847,213	2.60	54.60%
Alamo Fiesta RV	2,884,800	8.85	4,250,000	13.04	67.88%
Aqua Texas	57,897,000	177.68	92,541,685	284.00	62.56%
City of Boerne	327,493,000	1,005.04	602,824,350	1,850.00	54.33%
Comfort ISD	3,750,200	11.51	9,775,530	30.00	38.36%
Foothills Mobile Home Ranch	4,396,270	13.49	5,050,690	15.50	87.04%
Geneva School	4,762,190	14.61	9,351,924	28.70	50.92%
HC African Violets	1,406,040	4.31	2,280,957	7.00	61.64%
Hill Country Montessori	288,390	0.89	1,629,255	5.00	17.70%
Ingram Ready-mix	220,414	0.68	8,146,275	25.00	2.71%
KCWCID#1	107,797,100	330.82	162,925,500	500.00	66.16%
Kendall Wood Dental	39,370	0.12	198,250	0.61	19.86%
KWU	44,529,000	136.65	162,925,500	500.00	27.33%
McMarr Ranch	357	0.00	27,697,335	85.00	0.00%
Perry Donup	9,502,108	29.16	53,765,415	165.00	17.67%
SCR Properties	35,220	0.11	85,000	0.26	41.44%
Singing Waters	21,500	0.07	164,900	0.51	13.04%
Tim Lamberson	103,520	0.32	5,213,616	16.00	1.99%
TR Drilling & Service	269,321	0.83	699,240	2.15	38.52%
Zimmer_Zampese	37,510	0.12	42,500	0.13	88.26%

FY 17-18 Totals	565,895,890	1,736.67	1,150,415,134	3,530	49.19%
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FY 16-17 Totals	522,382,374	1,603.13	1,150,415,134	3,530	45.41%
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	Gallons Pumped FY 14-15	Acre Feet Pumped	Gallons permitted	Acre Feet permitted	Utilized %
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FY 16-17 vs FY 17-18	43,513,516	133.54	0.00	0	3.78%
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	Gallons Pumped	Acre Feet Pumped	Gallons permitted	Acre Feet permitted	Utilized %
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(management objective 1.2)

The total **actual** production from these wells is about **49.19%** of what the wells were originally permitted for, compared to 56.58% in FY 16-17, 47.43% in FY 15-16, 32.83% in FY 14-15, 27.49% in FY 13-14, 28.14% in FY 12-13.

Public Education and Outreach

The District provided water efficient literature and handouts, attended local speaking engagements, and provided articles that are run in local papers.

Water efficient, Drought-oriented, and Conservation related literature provided by CCGCD at speaking engagements and in the District office: (management objective 2.2, 6.2, 7.2, 7.5):

- Water - Yours, Mine & Ours (CCGCD)
- The Texas Manual on Rainwater Harvesting (TWDB)
- Water Conservation Tips (TWDB)
- Conserving Water Outdoors (TWDB)
- Conserving Water Indoors (TWDB)
- Rainwater Harvesting in Texas (Dr. Krishna)
- Texas Lawn Watering Guide (TWDB)
- Water Conscious Landscaping Tips (Bob Webster)
- Water Conservation – Landscape and Drought (Milan Michalec)

Newspaper articles (management objective 2.1, 4.2, 7.1):

Aquifer Watch (Bi-monthly)

Articles published by Director Michalec, FY 18-19, 1 October 2017-30 September 2018

- An innovative water supply-Rainwater harvesting (30 Dec 2017), Boerne Star.
- Kendall County water—A very short history (10 Jan 2017), Boerne Star.
- Who owns the water? (17 Jan 2017), Boerne Star.
- Read “serious policy book” on water with a critical eye (13 September 2018), San Antonio Express News
- Water: A very short history of Boerne (28 September 2018), Boerne Star
- Water: A very short history of Boerne Waterstone POA Newsletter, Fall 2018.
- Water Wars: Dialogue, (August-September 2018), Texas Observer

Speaking engagements (management objective 2.3):

Staff:

- TX Hydro-Geo Workshop: September 16, 2017
- Cibolo Creek Elementary: February 22, 2018

Directors:

- Cider on the Cibolo, Cibolo Nature Center and Farm, 17 November 2017
- Texas Aquifers: What lies above, and below, Cordillera Ranch Nature Club, 13 March 2018
- Book Review Speakers Panel, “A thirsty land: The making of an American water crisis, Hill Country Alliance Leadership Conference, 27 September 2018

Conjunctive water management

The District meets regularly with representatives from the Guadalupe Blanco River Authority, the City of Boerne, and Kendall County. (management objective 4.3)

Drought Planning/Management

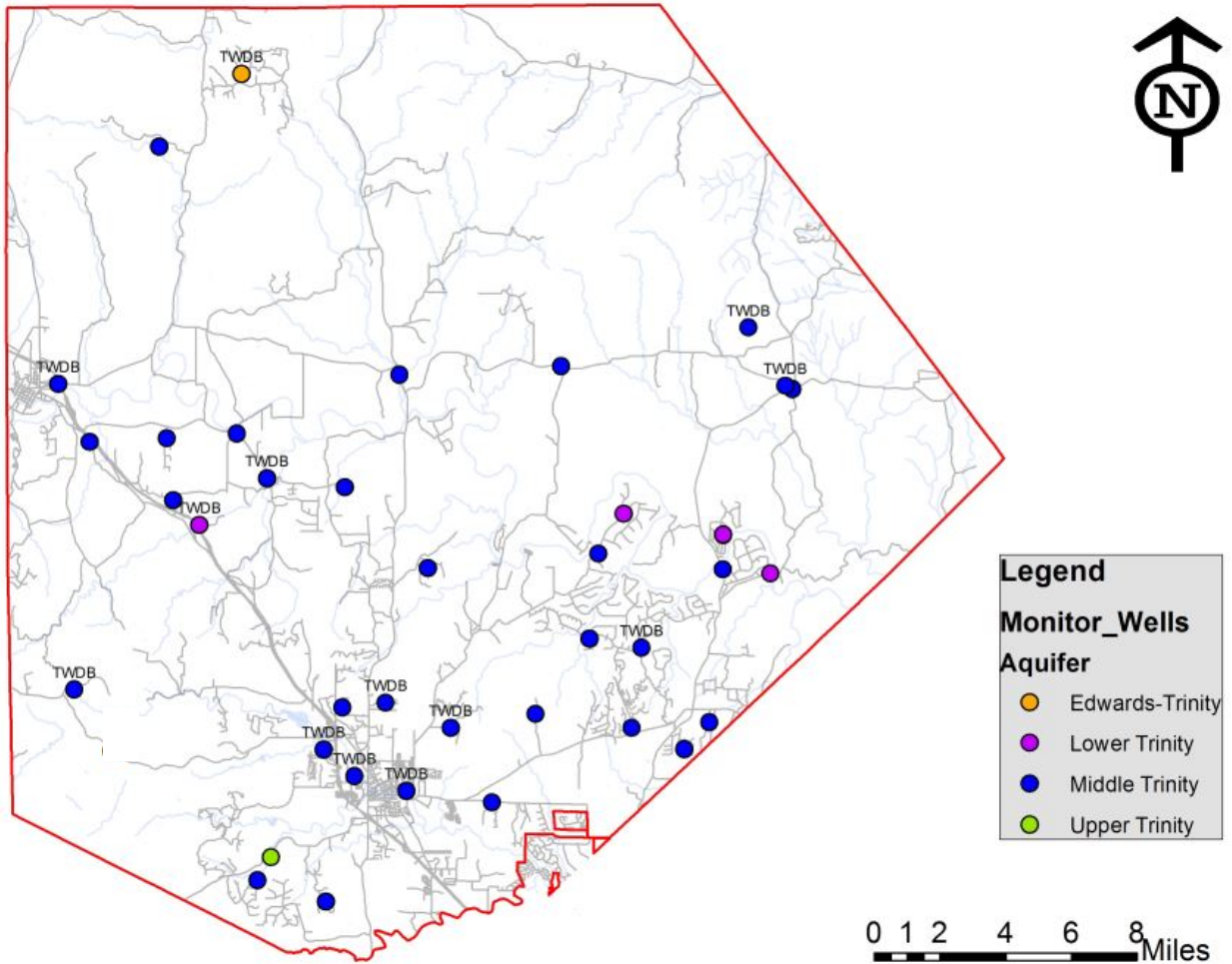
The District continues to gather more valuable data on water levels and rainfall. District Groundwater Technician, Heath Hoffman, correlates stream flows readings from the USGS Comfort and Spring Branch gauges on the Guadalupe with cumulative local rainfall and groundwater levels in the District's 40 monitor wells. The District (management objective 4.2, 6.1)

Meeting Date	Drought Stage
January 12, 2015	Stage 2
May 12, 2015	Stage 1
September 14, 2015	Stage 2
December 15 th , 2015	Stage 1
June 14, 2016	Stage 0
August 9, 2016	Stage 1
September 13, 2016	Stage 0
June 12, 2017	Stage 1
September 12, 2017	Stage 2
July 10, 2018	Stage 3

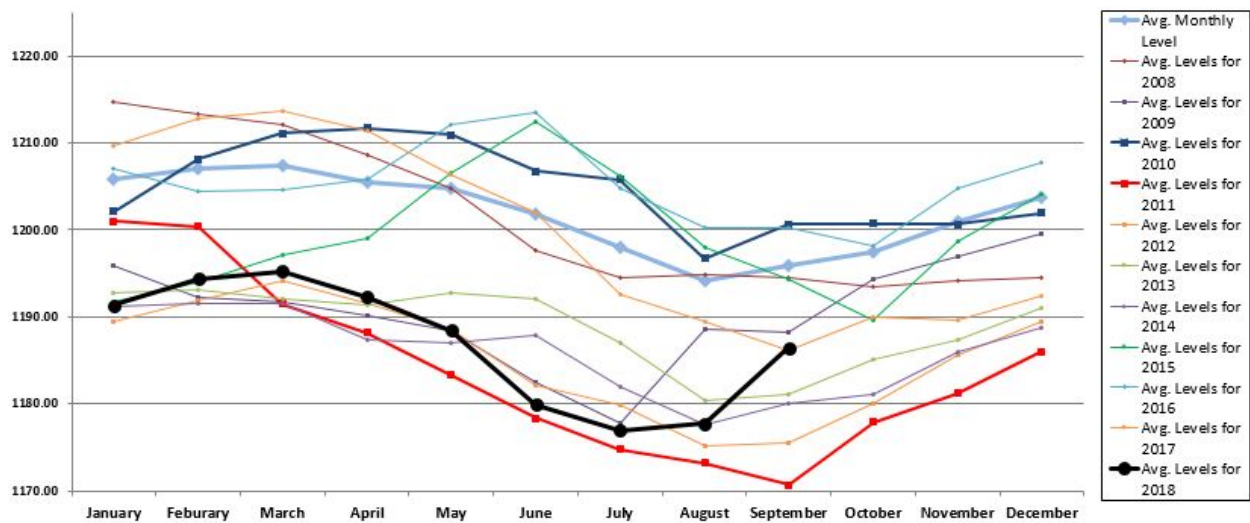
The Board currently reviews the drought stage at each regular monthly meeting and makes a determination based on analysis of the District's network of 40 monitor wells, stream flow in the Guadalupe River, cumulative rainfall and/or other factors as deemed appropriate by the Board. (management objective 6.1).

The District currently takes manual readings in 26 of the monitor wells on a bimonthly basis (about 624 readings annually). The remaining 14 monitor wells are real-time TWDB recorders that take hourly readings. (management objective 6.3)

2017-2018 Monitor Wells



(management objective 8.2)



Other Management Objectives/Strategies

Recharge Enhancement (management objective 7.3 & 7.4)

The District has initiated an effort to establish a regional dialogue about recharge features, how to best catalog them, and how to best protect these features. As of this report, several new recharge features have been located within the District.

Currently the District has a moratorium on the filling, destruction, and removal of caves, sinkholes, swallet holes and critical environmental features, see District Order 2006-021, adopted in May of 2006.

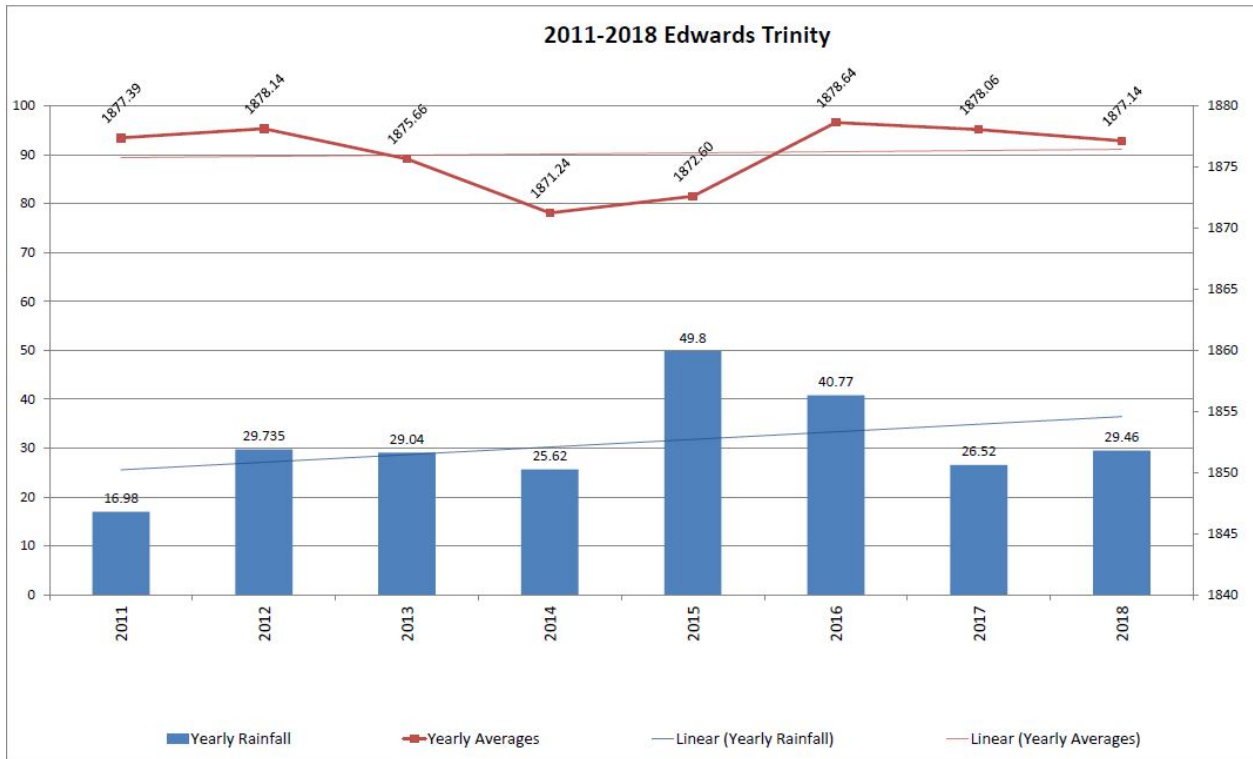
The Board also adopted rules related to the protection of sensitive recharge features in FY12-13.

Brush Control (management objective 7.7)

Currently the District has no adopted policies related to brush control/watershed enhancement. District staff believes that this is a valid management strategy that should be investigated further. The District attends the annual meetings about the Watershed Enhancement Project held by the local soil and water conservation District and the NRCS. Numerous studies and examples have shown that selective and ongoing brush management (i.e. removal of ashe juniper) has improved recharge and groundwater availability.

Addressing Desired Future Conditions in a quantitative manner (management objective 8.1 & 8.2)

The current management plan addresses the DFC for the Edwards Group of the Edwards-Trinity (Plateau) Aquifer and the Trinity Aquifer. The District monitors the water levels in two Edwards (Kft) wells. One of the wells is located in the Northern portion of the District (Alamo Springs) and the other is in the Southwest portion of the District (Champee Springs).



The District monitors water level in 33 Trinity monitor wells.

