



State of the District - Annual Report to the Board for FY 2015-2016

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 2015-2016 (October 1st, 2015 - September 30th, 2016).

Well Registrations

114 new water wells were drilled in FY 15-16

(146 in FY 14-15, 123 in FY 13-14, 109 in FY 12-13, 122 in FY 11-12, 128 in FY 10-11, 89 in FY 09-10)

15 in District 1 (13.16%)

40 in District 2 (35.09%)

31 in District 3 (27.19%)

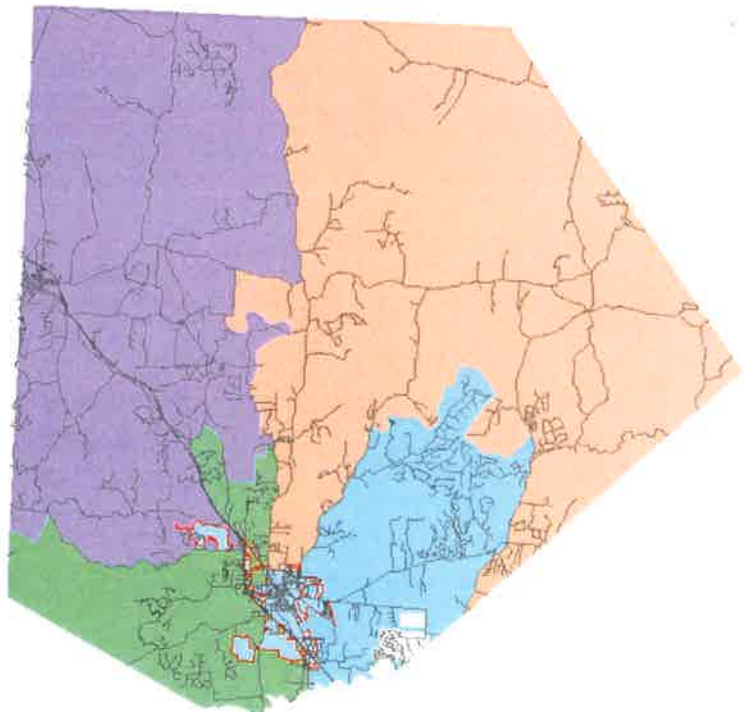
28 in District 4 (24.56%)

Of these **114** new wells, **108** were drilled for domestic use, **3** for livestock use, and **3** for small businesses. **13** existing wells were plugged.

98% of the new wells were drilled into the Middle Trinity Aquifer (**105** into the Cow Creek, **7** into the Hensell, and **0** into the Lower Glen Rose). The Upper Trinity (Upper Glen Rose) had **1** 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.

34 existing wells were registered in FY 15-16 compared to 39 in FY 14-15, 53 in FY 13-14, 44 in FY 12-13, 58 in FY 11-12, 86 in FY 10-11 and 44 in FY 09-10.

As of September 30th, 2016 the District had **7,830** registered wells.



Operating Permits for Non-exempt wells

The CCGCD currently has **162**

wells that are producing under an operating permit issued by the District. As a combined total they are permitted for **4,883.32 acre feet**.

In FY 15-16 the CCGCD issued **five** new operating permits and renewed **seven** 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 14-15	Acre Feet Pumped	Gallons permitted	Acre Feet permitted	Utilized %
46 Crossing/Valero	457,928	1.41	847,213	2.60	54.05%
Alamo Fiesta RV	2,462,400	7.56	4,250,000	13.04	57.94%
Aqua Texas	44,870,000	137.70	92,541,685	284.00	48.49%
City Of Boerne	189,481,000	581.50	602,824,350	1,850.00	31.43%
Comfort ISD	5,412,400	16.61	9,775,530	30.00	55.37%
Foothills Mobile Home Ranch	3,899,610	11.97	5,050,690	15.50	77.21%
Geneva School	3,635,140	11.16	9,351,924	28.70	38.87%
HC African Violets	1,237,315	3.80	2,280,957	7.00	54.25%
Hill Country Montessori	213,117	0.65	1,629,255	5.00	13.08%
Ingram Ready-mix	287,990	0.88	8,146,275	25.00	3.54%
KCWCID#1	103,629,100	318.03	162,925,500	500.00	63.61%
Kendall Wood Dental	42,840	0.13	198,250	0.61	21.61%
KWU	14,387,000	44.15	162,925,500	500.00	8.83%
McMarr Ranch	861,532	2.64	27,697,335	85.00	3.11%
Perry Donop	6,011,168	18.45	53,765,415	165.00	11.18%
SCR Properties	29,790	0.09	85,000	0.26	35.05%
Singing Waters	0	0.00	164,900	0.51	0.00%
Tim Lamberson	468,840	1.44	5,213,616	16.00	8.99%
TR Drilling & Service	250,280	0.77	699,240	2.15	35.79%
Zimmer_Zampese	21,880	0.07	42,500	0.13	51.48%

(management objective 1.2)

The total **actual** production from these wells is about **32.83%** of what the wells were originally permitted for, compared to 27.64% in FY 13-14 28.14% in FY 12-13, 36.5% in FY 11-12, 45% in FY 10-11 and 29% from FY 09-10.

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)

Speaking engagements (management objective 2.3):

Staff:

- BISD 7th grade class: March 9th and 10th - 500+ students
- Leadership Boerne: November 18th, 2015

Directors:

- Water Myths and Truths (Cibolo Nature Center): October 16th, 2014 (Michalec and Webster)
- Boerne Chamber of Commerce Water Forum: October 23rd, 2014 (Michalec)
- Rainwater Revival (Dripping Springs): November 5th, 2014 (Michalec)
- Hangar Doors Retiree Luncheon (Randolph AFB): September 16th, 2015 (Michalec)

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

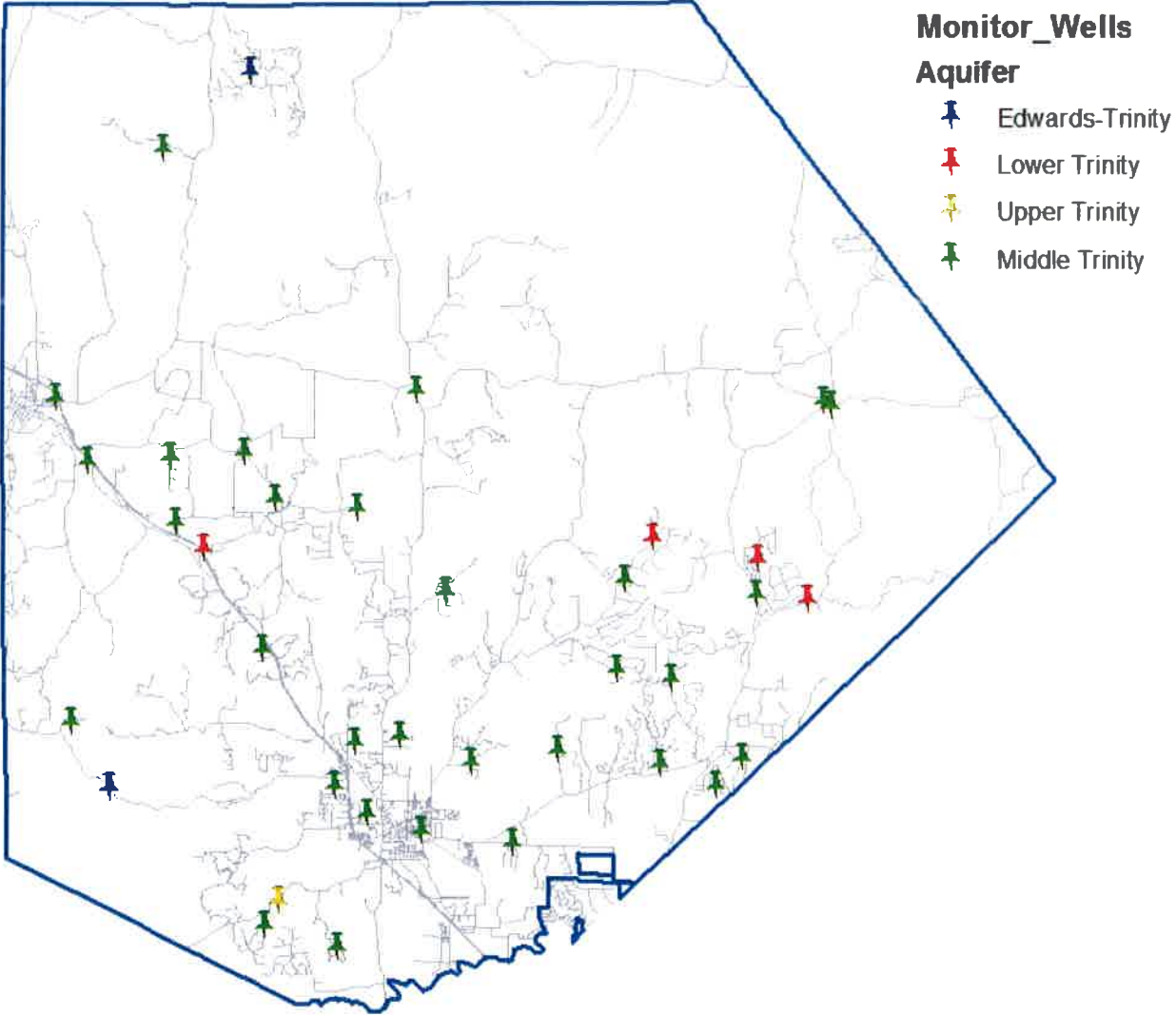
The District continues to gather more valuable data on water levels and rainfall. District Groundwater Technician, Heath Hoffman, correlates stream flows readings from the USGS Comfort and Spring Branch gauges on the Guadalupe with cumulative local rainfall and groundwater levels in the District's 40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

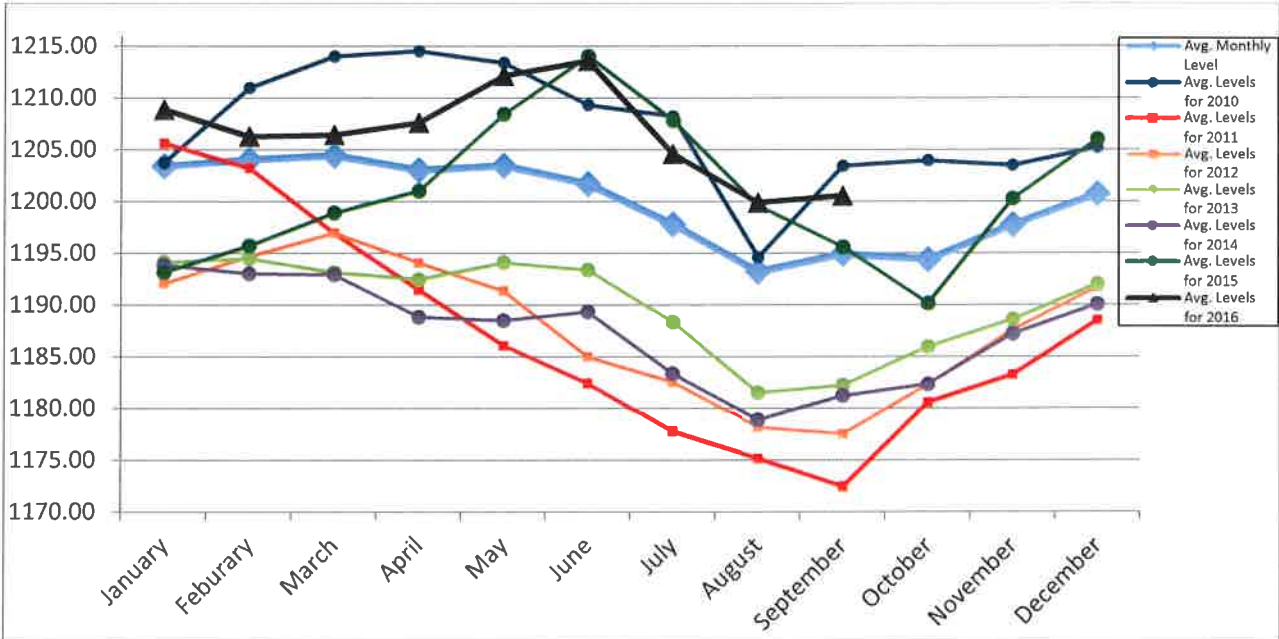
The Board currently reviews the drought stage at each regular monthly meeting and makes a determination based on analysis of the District's network of 40 monitor wells, stream flow in the Guadalupe River, cumulative rainfall and/or other factors as deemed appropriate by the Board. (management objective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

The District currently takes manual readings in 29 of the monitor wells on a bimonthly basis (about 720 readings annually). The remaining 11 monitor wells are real-time TWDB recorders that take hourly readings. (management objective 6.3)

2014-2015 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. Fair Hole, a sinkhole near the confluence of the Balcones and Cibolo Creeks could be a potential location for a recharge enhancement feature, but is located in the Trinity Glen Rose GCD to the south.

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.

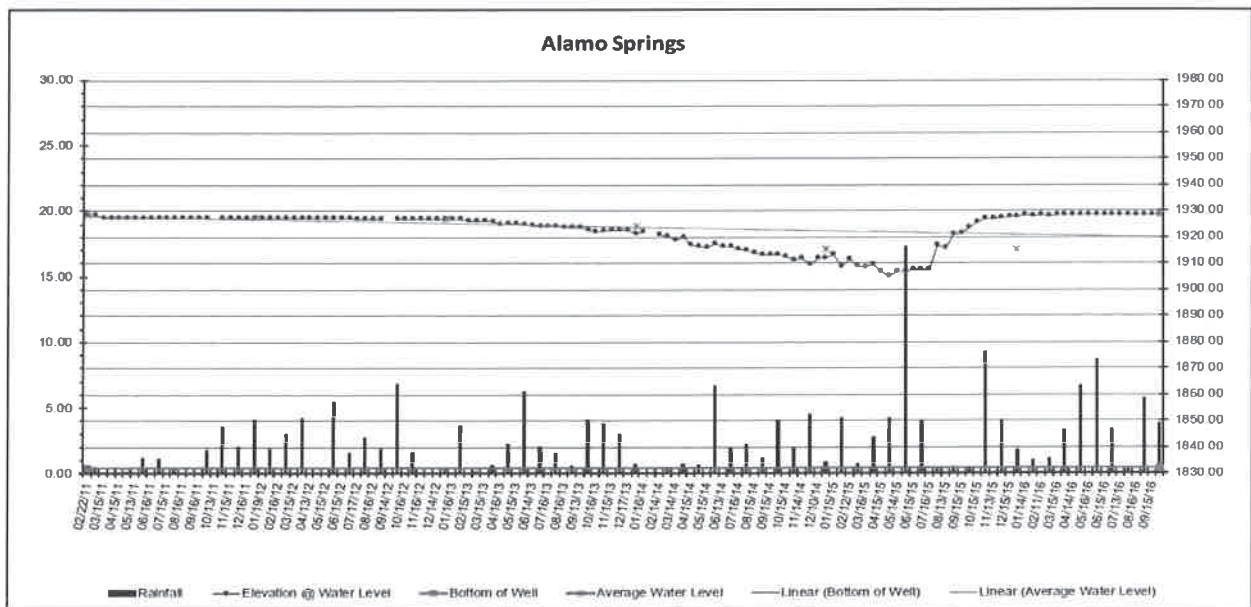
The Board also adopted rules related to the protection of sensitive recharge features in FY12-13.

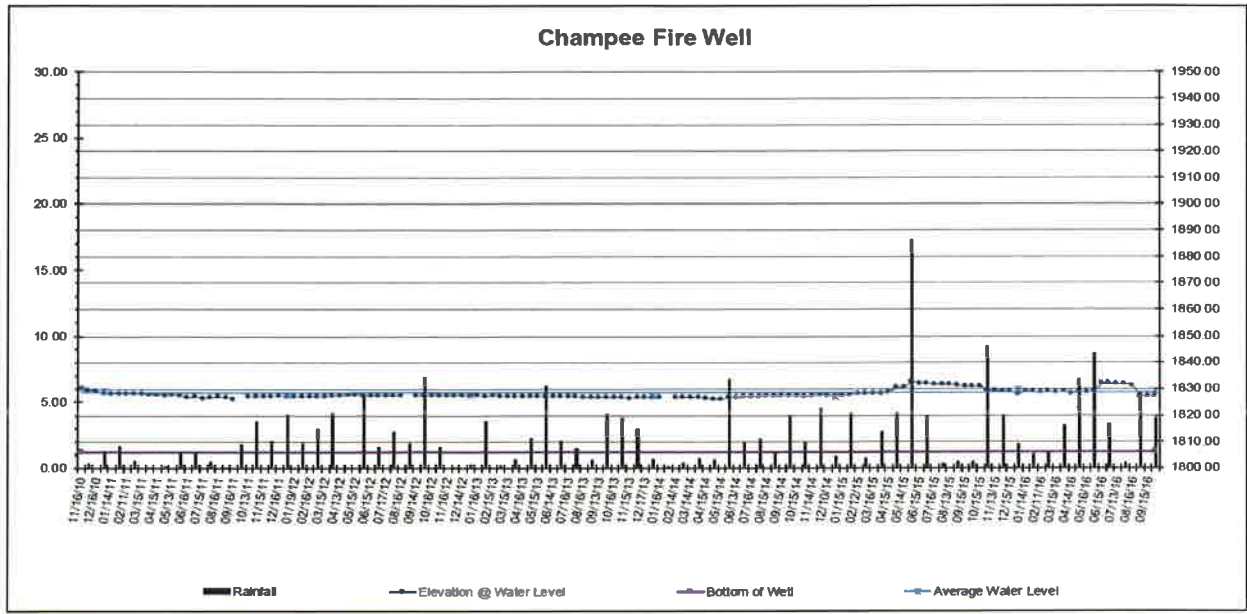
Brush Control (management objective 7.7)

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. Dense stands of ashe juniper, with their scale-like foliage, prevent rain from every reaching the ground, where every drop of rainfall counts as recharge.

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 38 Trinity monitor wells.

