GCGCD NEWS

OATH of OFFICE 2022

Congratulations to our newly elected (and re-elected) Board of Directors!!

Pictured above from left to right:
Judge William Old III
Jeff Schuehle, District 7 – Vice-President
Matt Miranda, District 1
Mark Gustafson, District 5
Hilmar Blumberg, District 2 - Secretary

Thank you Judge Old for taking the time to attend our January board meeting to administer the Oath of Office. And Thank You to all of our Directors for their dedication to the conservation, preservation, and protection of groundwater!

Robert Raetzsch, District 3
William Jones, District 4 – Treasurer
Hilmar Starcke III, District 6 - President

Your work is so important!! thank you!

WWW.GCGCD.ORG

WINTER 2021-2022 Newsletter

IN THIS ISSUE

Notes from the GM

Happy New Year Everyone!

Kelley Cochran
General Manager

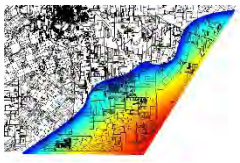
On a personal note – You may have noticed I have a new last name. I am super happy to share that I got married in December!!! More exciting news:

I was fortunate to start off the new year with an amazing opportunity to sit down with Director Kathleen Jackson of the TWDB. She took time out of her busy schedule to mentor me as a graduate of the 2021Texas Water Leaders Program. While at the TWDB office, I was also able to visit with Director Brooke Paup and Executive Administrator Jeff Walker. Thank you all for sharing your time with me.

Director Kathleen Jackson

Director Brooke Paup

Executive Administrator Jeff Walker



Carrizo Water Rights ownership data review status

in progress…

Every January, GCGCD obtains the most current parcel ownership data from the Guadalupe County Appraisal District which is used to assign water rights associated with the saturated thickness model. Check our website for the latest updates [WATER RIGHTS - Guadalupe County Groundwater (gcgcd.org)](www.gcgcd.org) Updated Water Rights coming soon!

GCGCD Rule 5.4(d) The District is responsible for calculating, and regularly updating, by employing a computer program using the most reliable hydrological data available, the approximate total volume of saturated Carrizo sand within the District … and the relative percentage of the total volume of the Carrizo sand within the District beneath every individual property in the District.

GMA 13 Proposed Desired Future Conditions ADOPTED

On November 19, 2021 – Groundwater Management Area 13 (GMA 13) approved the following proposed DFCs and designated non-relevant aquifers:

Due to limitations of the Groundwater Availability Model for the Southern Portion of the Carrizo-Wilcox, Queen City, and Sparta aquifers identified and discussed during 2016 and 2021 Joint Planning, Groundwater Management Area 13 proposes two desired future conditions for the Carrizo-Wilcox, Queen City, and Sparta aquifers:

- The first desired future condition for the Carrizo-Wilcox, Queen City and Sparta aquifers in Groundwater Management Area 13 is that 75 percent of the saturated thickness in the outcrop at the end of 2012 remains at the end of 2080. Due to limitations of the current Groundwater Availability Model, this desired future condition cannot be simulated as documented during 2016 Joint Planning in GMA 13 Technical Memorandum 16-08 (Hutchison, 2017d).

- A secondary desired future condition for the Carrizo-Wilcox, Queen City, and Sparta aquifers in Groundwater Management Area 13 is an average drawdown of 49 feet (+/- 5 feet) for all of Groundwater Management Area 13. The drawdown is calculated from the end of 2012 conditions through the year 2080. This desired future condition is consistent with simulation "GMA13_2019_001" summarized during a meeting of Groundwater Management Area 13 members on March 19, 2021.

The desired future conditions for the Yegua-Jackson Aquifer in Groundwater Management Area 13:

- For Gonzales County, the average drawdown from end of 2010 through 2080 is 3 feet (+/- 1 foot).
- For Karnes County, the average drawdown from end of 2010 through 2080 is 1 foot (+/- 1 foot).
- For all other counties in Groundwater Management Area 13, the Yegua-Jackson is classified as not relevant for purposes of joint planning.

Declaration of non-relevant aquifers in Groundwater Management Area 13:

- Groundwater Management Area 13 does hereby document, record, and confirm that the Edwards (Balcones Fault Zone), Gulf Coast, and Trinity aquifers are not relevant for purposes of joint planning within Groundwater Management Area 13 and therefore do not require the establishment of desired future conditions by Groundwater Management Area 13, nor the determination by the Texas Water Development Board of Modeled Available Groundwater for those aquifers in Groundwater Management Area 13.

Groundwater conservation districts located wholly or partially within Groundwater Management Area 13 include: Evergreen Underground Water Conservation District, Gonzales County Underground Water Conservation District, Guadalupe County Groundwater Conservation District, McMullen Groundwater Conservation District, Medina County Groundwater Conservation District, Plum Creek Conservation District, Uvalde County Underground Water Conservation District, and Wintergarden Groundwater Conservation District.

Desired Future Conditions Update – continued

Groundwater Management Area 13

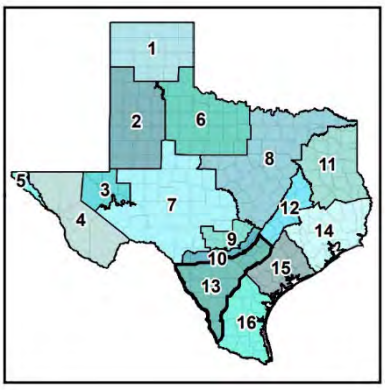
January 2022 GMA 13 submitted the DFC packet to the TWDB.

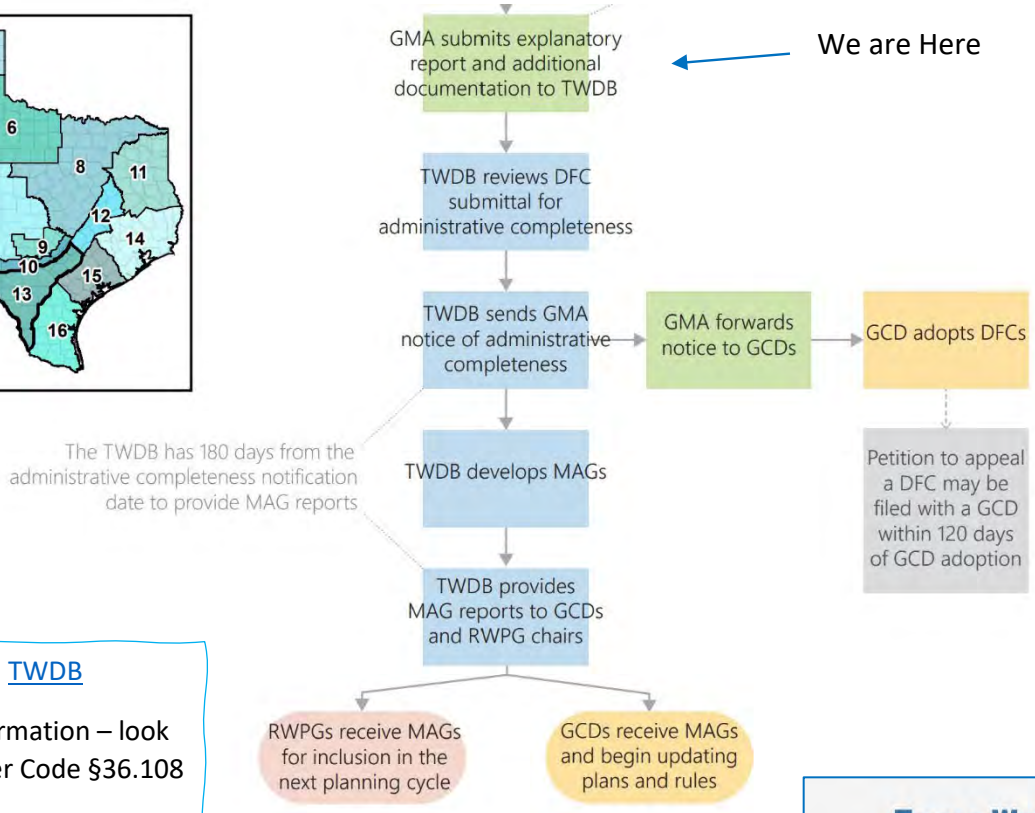
Shared One Drive link to submission files.

https://1drv.ms/u/s!BKzaRHgWbDJRjCX-ceG1cukO-lyf?e=Guj9h9

For boundary maps, DFC & MAGS from previous planning cycle, and contact information for planning representatives – visit the TWDB website @

Groundwater Management Area 13 | Texas Water Development Board





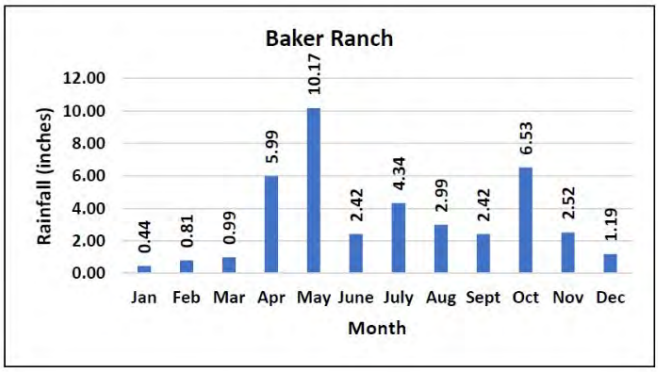
Graphics from TWDB

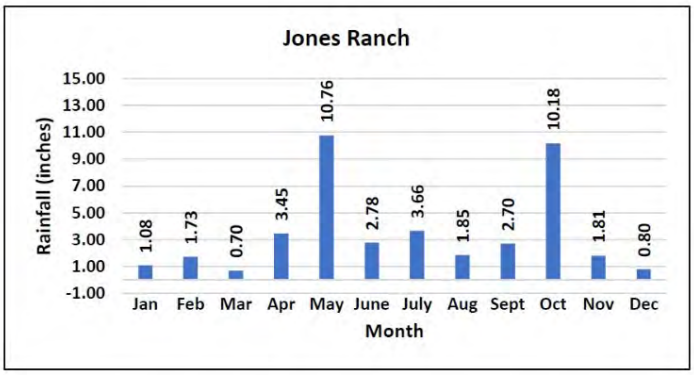
For more information – look to Texas Water Code §36.108

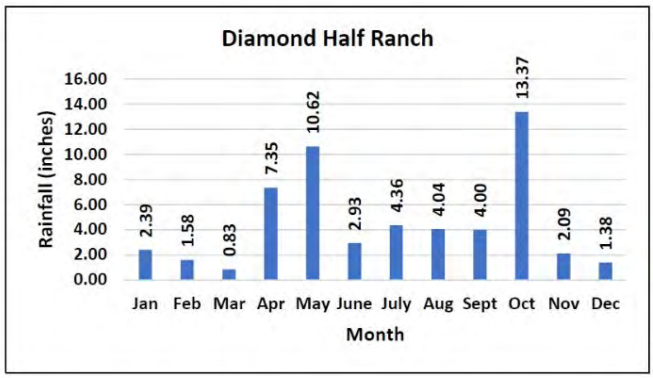
Texas Water Development Board

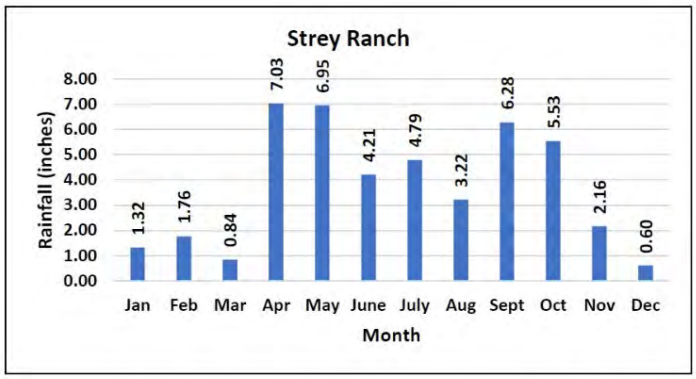
Next GMA 13 meeting is scheduled for April 22nd at 9:30 am @ EUWCD, Pleasanton, TX

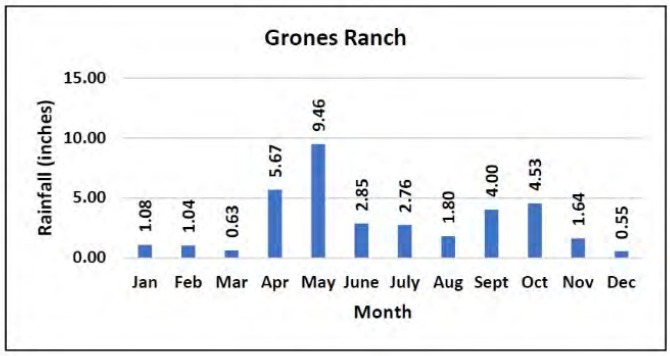
To read the Submitted DFCs – turn to page 6 of this newsletter! 😊

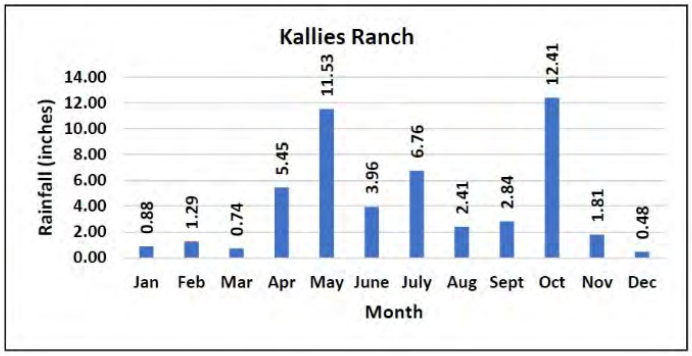

Baker Ranch
Rainfall (inches)
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.44
0.81
0.99
5.99
10.17
2.42
4.34
2.99
2.42
6.53
2.52
1.19
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month

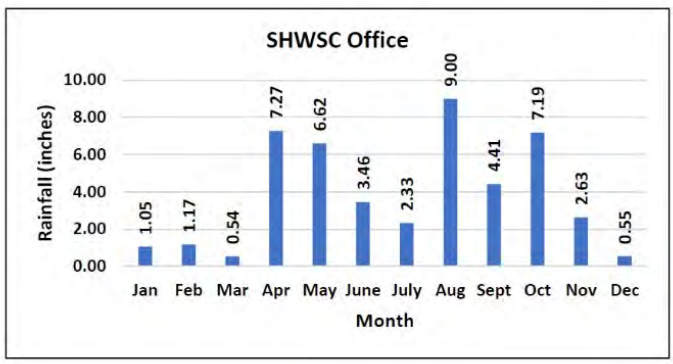

Jones Ranch
Rainfall (inches)
15.00
13.00
11.00
9.00
7.00
5.00
3.00
1.00
-1.00
1.08
1.73
0.70
3.45
10.76
2.78
3.66
1.85
2.70
10.18
1.81
0.80
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month

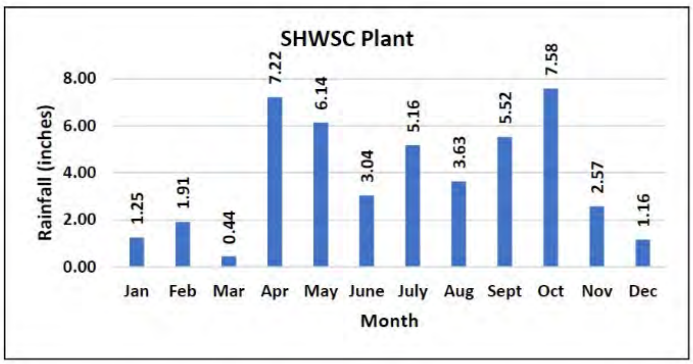

Diamond Half Ranch
Rainfall (inches)
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
2.39
1.58
0.83
7.35
10.62
2.93
4.36
4.04
4.00
13.37
2.09
1.38
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month


Strey Ranch
Rainfall (inches)
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1.32
1.76
0.84
7.03
6.95
4.21
4.79
3.22
6.28
5.53
2.16
0.60
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month

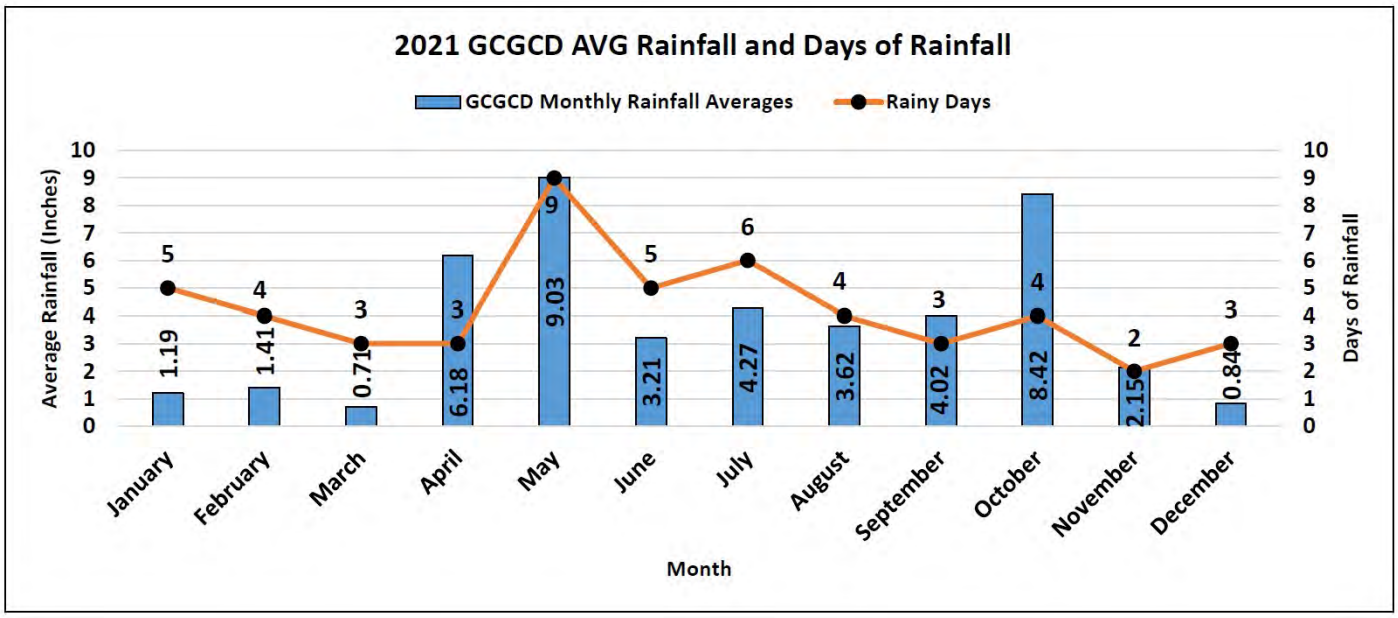

Grones Ranch
Rainfall (inches)
15.00
10.00
5.00
0.00
1.08
1.04
0.63
5.67
9.46
2.85
2.76
1.80
4.00
4.53
1.64
0.55
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month


Kallies Ranch
Rainfall (inches)
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0.88
1.29
0.74
5.45
11.53
3.96
6.76
2.41
2.84
12.41
1.81
0.48
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month


SHWSC Office
Rainfall (inches)
10.00
8.00
6.00
4.00
2.00
0.00
1.05
1.17
0.54
7.27
6.62
3.46
2.33
9.00
4.41
7.19
2.63
0.55
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month


SHWSC Plant
Rainfall (inches)
8.00
6.00
4.00
2.00
0.00
1.25
1.91
0.44
7.22
6.14
3.04
5.16
3.63
5.52
7.58
2.57
1.16
Jan Feb Mar Apr May June July Aug Sept Oct Nov Dec
Month

District Rainfall Data for 2021



Total Average Rainfall across District through December = **45.04"**

GCGCD Rainfall 2021													
Location	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual Total By Site
Baker - TexMesonet	0.44	0.81	0.99	5.99	10.17	2.42	4.34	2.99	2.42	6.53	2.52	1.19	**40.81**
Diamond Half Ranch- TexMesonet	2.39	1.58	0.83	7.35	10.62	2.93	4.36	4.04	4.00	13.37	2.09	1.38	**54.94** ★
Grones - TexMesonet	1.08	1.04	0.63	5.67	9.46	2.85	2.76	1.80	4.00	4.53	1.64	0.55	**36.01**
Jones - TexMesonet	1.08	1.73	0.70	3.45	10.76	2.78	3.66	1.85	2.70	10.18	1.81	0.80	**41.50**
Kallies Ranch Hwy 90 A	0.88	1.29	0.74	5.45	11.53	3.96	6.76	2.41	2.84	12.41	1.81	0.48	**50.56**
SHWSC Office - TexMesonet	1.05	1.17	0.54	7.27	6.62	3.46	2.33	9.00	4.41	7.19	2.63	0.55	**46.22**
SHWSC Plant - TexMesonet	1.25	1.91	0.44	7.22	6.14	3.04	5.16	3.63	5.52	7.58	2.57	1.16	**45.62**
Strey - TexMesonet	1.32	1.76	0.84	7.03	6.95	4.21	4.79	3.22	6.28	5.53	2.16	0.60	**44.69**
													GCGCD Total Avg
Monthly Avg across GCGCD	1.19	1.41	0.71	6.18	9.03	3.21	4.27	3.62	4.02	8.42	2.15	0.84	**45.04**

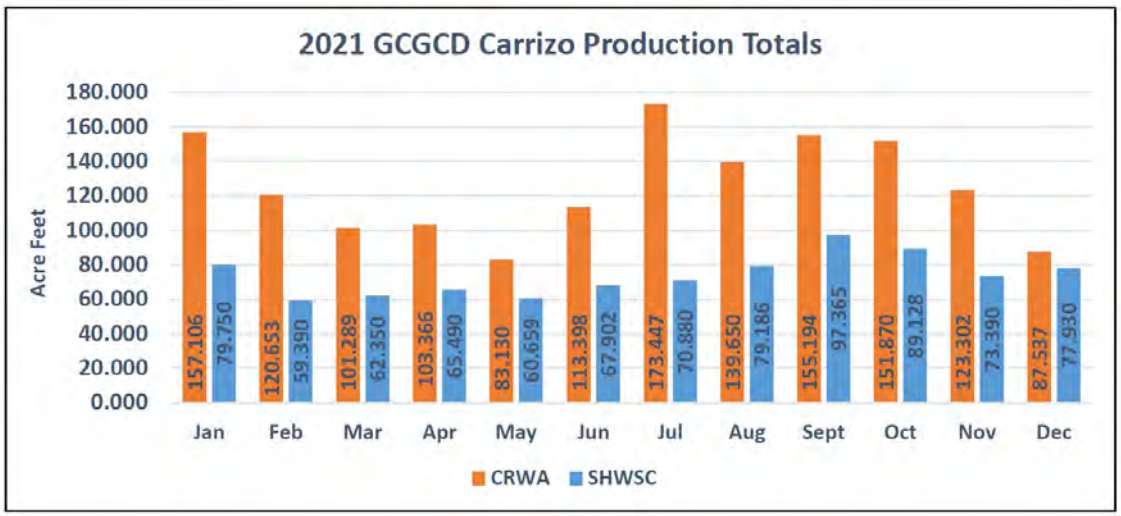
Weather Links to stay informed:

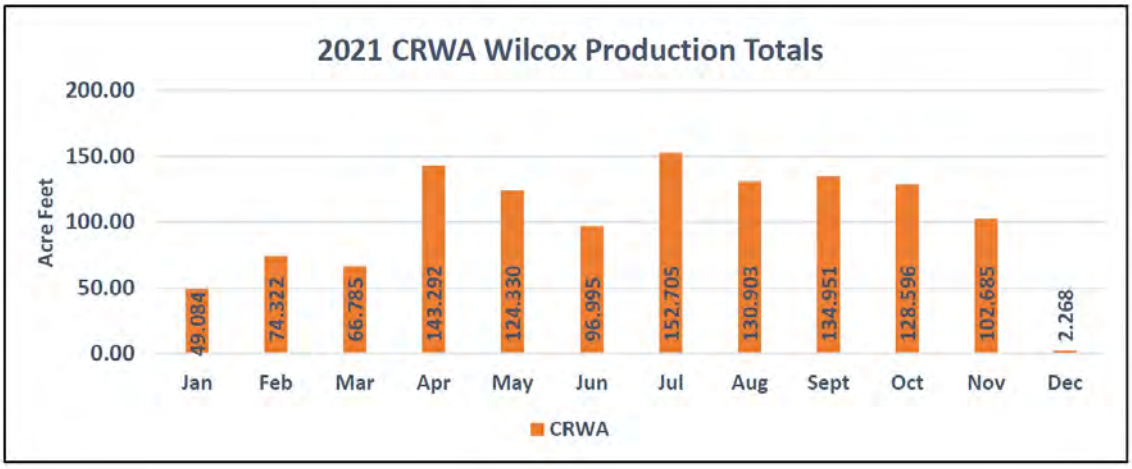
TexMesoNet | Texas Water Development Board

National Weather Service

Texas | Drought.gov

6 more weeks of WINTER





GCGCD Field Tech Omar Maldonado poses for a picture at gate to MW-CZ-3

January 2021 - January 2022 Aquifer Levels Report

by William B. Klemt

Water levels were measured on January 19, 2022

Look for the Report on our website mid-February

75th Annual TGWA 2022 ANNUAL CONVENTION & TRADE SHOW

Was held in Frisco, TX this year on January 26-28th

The 2022 Geoscience Seminar focused on the Carrizo-Wilcox Aquifer.

A Massive THANK YOU to our Friends at the Upper Trinity Groundwater Conservation District for hosting the 3rd Annual Geoscience Seminar!! And to the TGWA staff, GWS Board and our awesome presenters for making this another great success!!

Introduction of General Geology of the Carrizo-Wilcox – Steven Bond, Bond Geological Services

Ethics for Geoscientists - Becky Johnson, Texas Board of Professional Geologists

Groundwater Availability Modeling -Matt Uliana, INTERA

SAWS Brackish Wilcox Project - Bill Stein, Advanced Groundwater Solutions

Geophysical Log Interpretation in the Carrizo-Wilcox - Mike Miller, GeoCam, Inc.

Carrizo Outcrop Monitor Well Project – Russell Perry, Daniel B. Stephens

Comparison of Pumping Tests in the Simsboro, Milam County – CJ Bennett, Bennett & Associates, LLC

Evaluation of Carrizo-Wilcox Aquifer Hydraulic Properties in Central Texas – Mike Keester, RW Harden

Winter Tips to prevent damage to water pipes & your wallet

1. Take advantage of milder weather this winter to inspect plumbing and your water well if you have one.
2. Focus on pipes in exposed or unheated spaces like garages, attics, and crawl spaces.
3. Consider electric heat cable kits which automatically adjust heat output to keep water pipes from freezing.
4. Check your roof, gutters, and downspouts for damage to prevent water entering your home.
5. Clean gutters to allow rainwater to flow.
6. Look for leaks around the house. Smart leak detectors and shut-off valves are available in smartphone apps enabling you shut off your home's water supply from anywhere.
7. Shut off your water sprinkler during winter months & Drain underground pipes and water hoses connected to the sprinkler before any freeze.
8. Have a portable gas generator on standby in case of power outages to connect to your pumping system.
9. Stock up on bottled water.
10. Cover your well pump (if above ground) in an insulated enclosure to protect it from damage due to freezing.
11. If you already have a well house, take time to inspect it to ensure pressure switch lines are protected from freezing. Make sure there are no harmful chemicals inside that could contaminate your well or attract pests.

Source: Texas Water Newsroom, The Panola Watchman, Wellowner.org

Celebrating 130 Years!

The state's oldest regulatory agency

1891 - 2021

RRC Mission Statement

"To serve Texas by our stewardship of natural resources and the environment, our concern for personal and community safety, and our support of enhanced development and economic vitality for the benefit of Texans".

To read more about the History of the Railroad Commission
RRC History (texas.gov)

RRC's State Managed Plugging Program exceeded Legislative goal for 5th straight year plugging orphaned wells – Read more 091321-Well Plugging Target (texas.gov)

Texas Water Leaders Program

Applications are now open

Class of 2021 – that's me 😊

"An annual leadership program that provides water professionals stepping into positions of leadership with the tools, training, and opportunities to expand their potential". TWF

For more information and to apply visit:

Texas Water Leaders Program — Texas Water Foundation

Interactive 2022 State Water Plan

The TWDB released the graphically enhanced version of the 2022 State Water Plan, which was adopted by the Board in July 2021. This web application enables users to take an in-depth look at the 2022 State Water Plan data, projects, and strategies to see how water needs change over time, with filter options that allow viewing at different geographic levels—from statewide details down to the water user level. Click here for more information, and click here to explore the interactive site.

GCGCD Board meetings are held the 2nd Thursday of each month at 4:30 PM at our office located on the 3rd floor of the First United Bank in Seguin: 200 N. Austin St., Suite # 301.

February 10, 2022 – GCGCD board meeting
March 10, 2022 – GCGCD board meeting
April 14, 2022 – GCGCD board meeting

GCGCD
PO Box 1221
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830-379-5969
www.gcgcd.org
gcgcd@gcgcd.org

Additional ways to reach us at the District
We also have G-mail accounts

GM.GCGCD@gmail.com Kelley

District.GCGCD@gmail.com Omar

GCGCD Board of Directors & Staff

Kelley A. Cochran – General Manager
kelley@gcgcd.org

Omar Maldonado – Field Tech/Admin. Assistant
omar@gcgcd.org

District 1 – Matt Miranda - Director
mattjmiranda@gcgcd.org

District 2 - Hilmar Blumberg - Secretary
hilmar_blumberg@gcgcd.org

District 3 - A. Robert Raetzsch – Director
raetzsch@gcgcd.org

District 4 - William Jones – Treasurer
bill_jones@gcgcd.org

District 5 – Mark Gustafson - Director
mark_gustafson@gcgcd.org

District 6 - Hilmar Starcke III - President
hil_starcke@gcgcd.org

District 7 - Jeff Schuehle - Vice President
jeff_schuehle@gcgcd.org

Did You Know?

Engineers at the University of Texas at Austin have developed a hydrogel tablet that can purify a liter of contaminated river water in an hour or less to make it suitable for drinking.

Currently, the main way to purify water is to boil or pasteurize it, which are both time and energy consuming methods.

How does it work? The hydrogel tablets generate hydrogen peroxide to neutralize bacteria by disrupting their metabolism at an efficiency rate of 99.9%. The tablets require zero energy input, do not create harmful byproducts, and are easily removable without leaving behind any residue.

Work is currently underway to improve the hydrogels by increasing the different types of pathogens and viruses in water that they can neutralize. and commercializing several prototypes. Interesting.

Source:
Hydrogel Tablet Can Purify a Liter of River Water in an Hour - UT News (utexas.edu)