



# The SETGCD Well Monitor

## 20th Anniversary of the Southeast Texas Groundwater Conservation District

The Southeast Texas Groundwater Conservation District quietly celebrated its 20th anniversary earlier this year. The District was created in 2003 by Senate Bill 1888 during the 78th Regular Legislative Session, was passed by both Houses unanimously, and became official on June 18, 2003.

When originally created, the District was comprised of only Jasper and Newton Counties. The year after it was created, the Hardin County and Tyler County Commissioner's Courts petitioned the District to include them in the District by way of annexation. The original Board of Directors approved the request and Hardin and Tyler Counties then officially became part of the District after being voted on by the citizens who overwhelmingly approved of joining the District.

The District has been especially blessed with the many volunteers that have given their time on behalf of their communities to serve as Directors. There are 13 Directors, with each county within the District being represented by three Directors who represent various stakeholder groups, and the Presiding Officer is appointed by agreement of all 4 Commissioner's Courts within the District. The District has several Di-

*(Continued on page 2)*

### Board of Directors:

Roger Fussell, President  
Olen Bean, Vice President—Newton County  
Bobby Rogers, Sec./Treas. — Hardin County  
Sam Ashworth, Director — Hardin County  
Robb Starr, Director—Hardin County  
Greg Kelley, Director — City of Jasper  
Billy Ted Smith, Director — Jasper County  
Steven Black, Director— Jasper County  
Thomas Hawthorn, Director—Newton County  
Cody Jones, Director—City of Newton  
Charles Zimmerman, Director—Tyler County  
Rick Russler, Director—Tyler County  
Ken Jobe, Director—Tyler County

John Martin, General Manager  
John D. Stover, General Counsel

### Inside this issue

20th Anniversary Cont. ....	2
The Gulf Coast Aquifer .....	3
Drought / Precipitation .....	4
Conservation Corner .....	5
Observation Well Map .....	6
Static Water Level Readings ....	7

### Did You Know?

The oceans of the world are a major factor in regulating Earth's temperature.

It is estimated the Americans drink 1 billion glasses of water each day.

A camel can survive nearly 7 months without drinking water (fun fact—the hump does not hold water).

## NEW DIRECTOR: STEVEN BLACK (Representing Jasper County)



Mr. Steven Black was appointed to the Southeast Texas Groundwater Conservation District Board of Directors earlier this year after longtime Director Wendy Turner stepped down. Steven was born in Sulphur, LA, and he is a graduate of McNeese State University where he obtained a B.S. degree in chemical engineering. He has been employed with Meadwestvaco/Westrock since 2006 and was recently promoted to Environmental Manager.

Steven is married to his high school sweetheart Crystal and together they have 4 children. Steven says the kids keep their parents very busy with church, sporting events, and Boy Scouts. He also enjoys being outdoors with the family, playing tennis, bowling, grilling and fixing the things the kids break.

# 20th Anniversasary

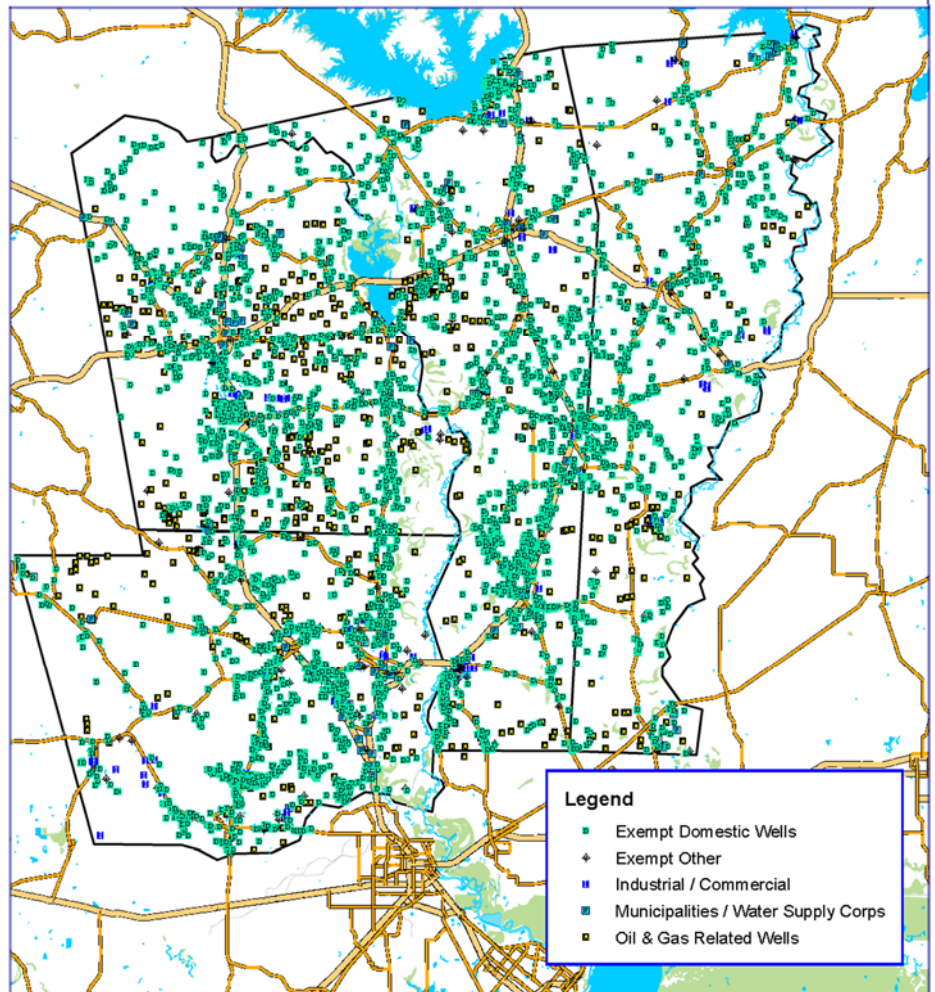
*(Continued from page 1 - District Celebrates 20th Anniversary)*

rectors who have been donating their time and knowledge to the District for over a decade: Roger Fussell (15 years), Bobby Rogers (15 years), Olen Bean (12 years), and Charles Zimmerman (11 years). The Board Members are not compensated in any way and are 100% volunteers. They have even taken action to decline mileage reimbursement (for which they are eligible) for their attendance of the monthly board meetings.

Since the District was created and began keeping records, a staggering number of new wells have been drilled within the District. The District has two main classifications of wells, “Exempt” and “Non-Exempt”. “Exempt” wells, the vast majority of them for domestic use, comprise over 98% of all the new wells drilled. From the time the District began it’s database through October of 2023 the District has had over 6,300 new wells registered (not including temporary wells). The number of new “Non-Exempt” wells, which are commercial wells, is much lower at only 63. Exempt wells that were drilled prior to the formation of the District are not required to be registered and, although the exact number is unknown, it is likely in the 10s of thousands. As for “Non-Exempt” wells that were drilled prior to the District formation, these wells were grandfathered into the District and provided Operating Permits based on their capabilities at the time of permitting. The District currently has 233 active “Non-Exempt” wells producing water for various commercial endeavors such as public water supplies and industrial use. These wells are the District’s main source of revenue (most groundwater conservation districts are property tax based—ours is fee based) and for every 1,000 gallons pumped 1 cent is collected.

In addition to the numerous activities in which the District is involved, it has also taken a leadership role in both of the regional water planning bodies. The District’s General Manager, John Martin, serves as Chairman for both Groundwater Management Area 14 and the Region I Water Planning Group.

As the District moves forward, tracking the development of new wells and staying involved in the regional water planning processes will help to ensure the Gulf Coast Aquifer is available for generations to come.

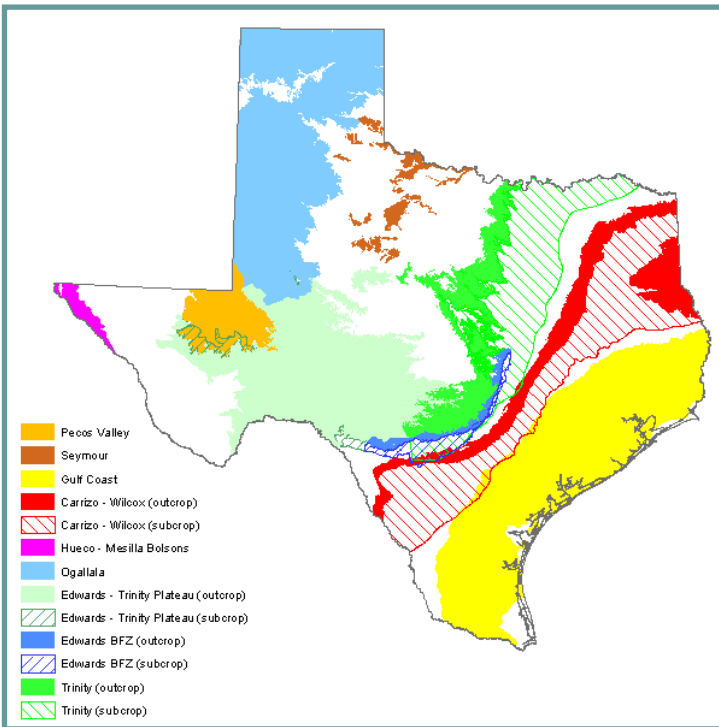


District Database Map—Wells Registered Since 2003

# The Gulf Coast Aquifer

Texas has numerous aquifers throughout the state. The Gulf Coast Aquifer is our main source of groundwater. As you can see from the map (left) there are eight major aquifers in Texas. Texas also has nearly 20 minor aquifers, and a new one yet to be fully understood, called the Maverick Basin Aquifer. The Maverick is very unique in that fresh water is usually shallower, but in the Maverick the freshwater is believed to be located between 5,000 and 8,000 feet deep.

The Gulf Coast Aquifer (shown in yellow), is known nationally as the Coastal Lowlands Aquifer System and stretches from the Texas/Mexico border into the Panhandle of Florida.



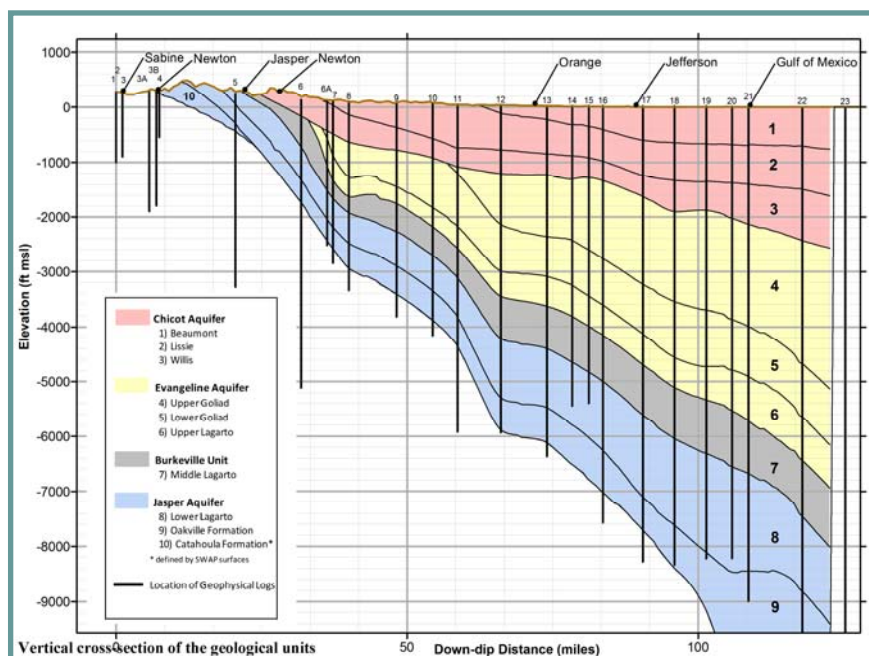
Water quality varies in the Gulf Coast Aquifer with depth and locality (see cross section map below for depth and thickness). The quality is generally good in the central and northeastern parts of the aquifer where total dissolved solids concentrations are less than 500 milligrams per liter, but is more saline to the south where total dissolved solids are typically 1,000 to more than 10,000 milligrams per liter and where the productivity of the aquifer decreases. Areas of increased salinity along the central and eastern Gulf Coast may be associated with saltwater intrusion in response to groundwater pumping or to brine migration in response to oil field operations and natural flows from salt domes intruding into the aquifer.

The aquifer is used for municipal, industrial, steam electric generation, and irrigation purposes. In Harris, Galveston, Fort Bend, and Wharton counties, water level declines of as much as 350 feet have led to land surface subsidence.

(Source information from TWDB)

## AQUIFER FACTS

- Aquifer Type: confined and unconfined
- Area of Aquifer: 41,970 Square Miles
- Number of Texas Counties containing the aquifer: 56
- Consists of 3 main layers/aquifer: The Chicot Aquifer, the Evangeline Aquifer, and the Jasper Aquifer
- Freshwater saturated thickness averages approximately 1,000 feet

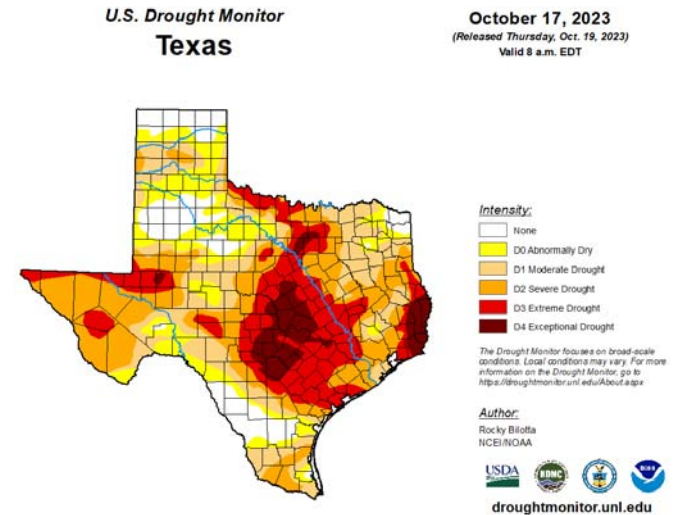
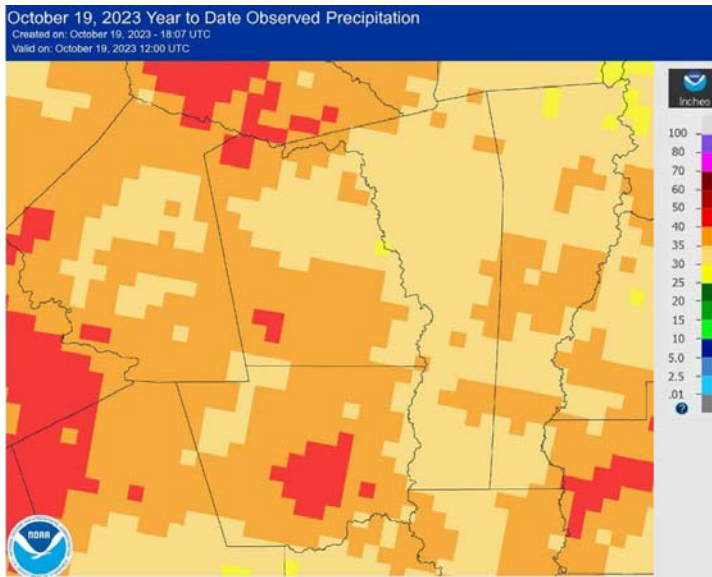




# DROUGHT CONDITIONS

As you can see from the October 17, 2023 U.S. Drought Monitor, Texas map (right), much of the state (including our District) is currently experiencing extreme to exceptional drought conditions. These conditions have begun to alleviate some, but only slightly, since the high pressure that sat on top of Texas all summer moved off.

The October 19, 2023 Year to Date Observed Precipitation Map (below) indicates that the majority of the District has

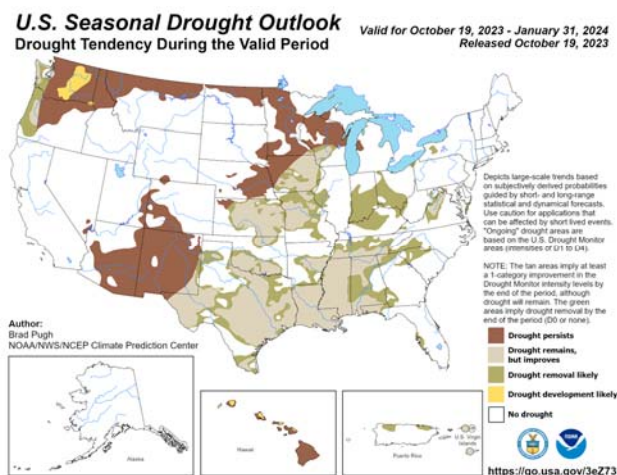
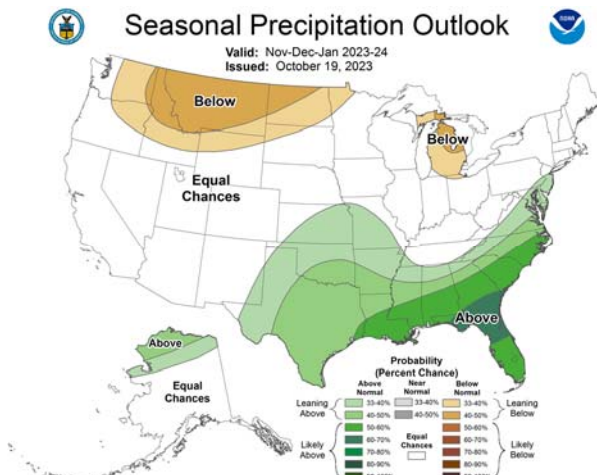


only received between 30 to 40 inches of rain this year (orange and cream colored areas), with a small area receiving between 40 to 50 inches of rainfall. The average rainfall for the District is between approximately 52 and 54 inches each year.

## U.S. SEASONAL DROUGHT OUTLOOK

The U.S. Seasonal Drought Outlook (below, right), valid October 19, 2023—January 31, 2024, indicates

that drought conditions remain within the District, however, they are expected to improve over the next several months. The predicted improved conditions are backed up by the October 19, 2023 90-day Precipitation Probability map (below, left) which indicates that we are likely to have a period of above average chances of precipitation ahead of us. With El Nino expected to be in place for the next several months, our winter temperatures are expected to be near normal, but due to many other weather factors it is unclear as to how much the drought conditions will improve.



## CONSERVATION CORNER

### Plan Ahead: Conserve Water—Reduce Summertime Waste

#### Will the drought continue into next year—if so, be prepared!

Springtime is quite a ways off, but it's never too early to start planning ahead with regard to our lawncare and landscaping. 2023 has proven to be a very dry summer, and if you are like me, you have large brown areas where grass used to grow and maybe even some bushes or trees that didn't survive the summer. Looking toward next spring, we can start thinking about how to better manage our yards by reducing the waste of water, and using our water more efficiently by replacing plants that may have died with drought resistant species. As we have all seen how dry it can be, and all of the impacts of drought conditions such as the increase in wildfires, now is a good time to start thinking about how to conserve water so you are ready next spring, especially if the drought conditions continue.

On average, over 55% of the water we use at home is used outside. With the start of spring we begin watering our gardens and lawns, we spend more time washing vehicles and boats, and as summer arrives we fill our pools. All of these activities can use large amounts of water.

When it comes to watering the plants in your yard there are several simple ways to reduce your water consumption. The use of mulch in the garden and in flowerbeds will reduce the rate of evaporation as well as suppress the growth of competing weeds. Mulch combined with the use of drip hoses will provide your plants with the water they need much more effectively than sprinklers, with minimal waste of the water. If you are watering with a sprinkler and do not have an automatic watering system, set a timer so that you don't forget to turn the water off after a selected amount of time. When it comes to watering your lawn, by allowing the grass to grow a little longer it will require less water. Taller grass enhances root development and also shades the root zone. When you do water, be sure to do so in the evening or early morning to minimize the evaporation of the water you just applied. Also, be sure that you water long enough for the water to soak down to the roots of your plants.

When landscaping new areas of your yard or replacing plants that may not have survived the 2023 summer, plan before planting! Consider wildscaping or xeriscaping. Wildscaping is meant to regenerate the native species of plants (and animals), which will require little to no aftercare. Not only will they not require much attention, the new area will also be

attractive to local wildlife. Texas Parks and Wildlife has a website with lots of good information on wildscaping at: [https://tpwd.texas.gov/huntwild/wild/wildlife\\_diversity/wildscapes/](https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/wildscapes/)

Xeriscaping (pronounced "zeer-i-scapeing"), not to be confused with zeroscaping which utilizes lots of stone, gravel and concrete, is another way to landscape in a manner that reduces or eliminates the need for watering. This is accomplished by using plants that are compatible with the local climate. The main difference between wildscaping and xeriscaping is that the plants used in xeriscaping are not necessarily native and, therefore, will not necessarily enhance habitat for local wildlife.

Other ways to conserve water outdoors and reduce waste are:

- Sweep driveways and walkways, don't use the hose;
- Be sure to have a shut off nozzle on the hose when you wash your vehicles so as not to leave the water flowing when not needed;
- If possible, use rain collection barrels to supply water for your flowers and garden;
- Clean gutters and downspouts by hand rather than using a hose;
- Cover swimming pools to reduce evaporation (this can save you thousands of gallons a year);
- Be sure to regularly check all outdoor plumbing regularly for leaks.

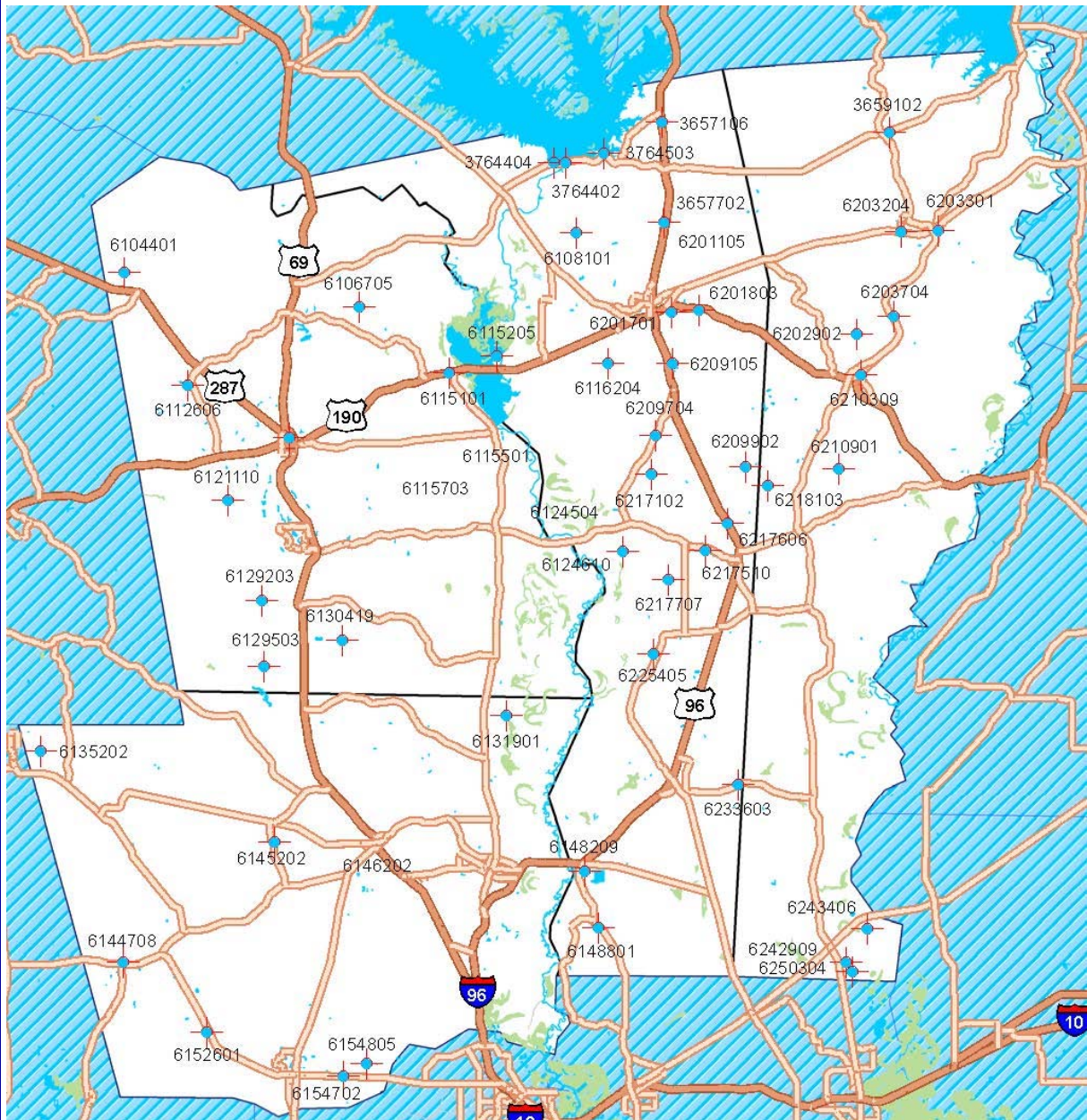
And remember, water conservation isn't something you should think about only in times of drought. The less water we waste today will help ensure that we have enough water tomorrow.



*Consider Frog-Fruit as a native replacement for groundcover. In addition to looking good, it is fast growing in full sun, is a pollinator magnet, can handle foot traffic and poor soil, as well as a variety of moisture conditions.*



## Static Water Level Observation Well Locations & State ID



**What Is A Static Water Level?** The Static Water Level is the distance from the surface of the ground down to the water table when a well is not being pumped. This is sometimes called the resting water level. For example, a static water level reading of -25 feet means that the distance from the ground down to the water table is 25 feet.

In the data on the following page, I have included a column indicating the amount of static water level change from the previous year. If the number is positive, it means that the water level has dropped in that particular well. If the change is a negative number, as most of them are, it means that the water level is higher than the previous year. Typically, large drops or rises are indicative of shallow wells that are susceptible and reactive to wet and dry periods. Conversely, deep wells are very stable and often show little change in static water level even after long periods of drought or periods of excessive precipitation.

## STATIC WATER LEVEL READINGS

State Well ID	County	Date Drilled	Well Depth	Early W.L. Reading / Year of W.L.		May_2009	Spring 2022	Spring 2023	1 year change
6131901	Hardin	1940	53	-38.79	1942	-25.35	-33.86	-34.50	-0.64
6135202	Hardin	2003	363	-64	2003		-57.52	-56.3	1.22
6144708	Hardin	1957	72	-24.12	1942	-24.21	-24.90	-25.40	-0.50
6145202	Hardin	2009	220	-12	2009		-7.20	-7.95	-0.75
6152601	Hardin	1948	764	-21	1948	-29.67	-22.59	-23.84	-1.25
6154702	Hardin	1951	1027	-23.94	1966	-25.2	-27.68	-27.22	0.46
6154805	Hardin	1998	618	-60	1998		-27.98	-28.97	-0.99
3657106	Jasper	1938	20	-8.7	1997	-4.69	-7.87	-4.70	3.17
3657702	Jasper	1994	378	-117.7	1997	-117.61	-115.40	-116.02	-0.62
3764402	Jasper	1962	300	-114.3	-114	-113.27	-110.16	-109.07	1.09
3764404	Jasper	1982	260	-66	1982	-46.83	-46.90	-44.82	2.08
3764503	Jasper	1981	260	-33.2	1997	-32.33	-30.94	-31.59	-0.65
6115205	Jasper	1984	442	39.96	1984	28.18	39.51	39.51	0.00
6116204	Jasper	1965	220	-51.7	1997	-51.61	-51.25	-50.95	0.30
6124610	Jasper	1998	200	-33.16	2008	-30.59	-31.48	-31.84	-0.36
6148209	Jasper	1947	1295	-66.79	1956	-177.09	-205.63	-199.98	5.65
6148221	Jasper	pre 1956	671	-22.47	1956	-28.92	-29.47	-28.50	0.97
6148801	Jasper	1903	1084	-6.85	1960	-5.38	-6.95	-7.90	-0.95
6201803	Jasper	1995	884	-85.1	1997	-85.54	-83.63	-82.85	0.78
6209105	Jasper	1967	15	-4.15	1997	-1.38	-3.08	-1.88	1.20
6209704	Jasper	1952	40	-35.84	1997	-34.4	-37.25	-36.40	0.85
6209902	Jasper	pre 1997	40	22.8	1997	-16.13	-24.10	-18.98	5.12
6217102	Jasper	1950	80	-54.85	1997	-80.00	-80.00	-80.00	0.00
6217510	Jasper	pre 1997	140	-15.9	1997	-14.7	-15.11	-15.23	-0.12
6217606	Jasper	1964	70	-7.8	1997	-1.09	-2.00	-2.25	-0.25
6225405	Jasper	1983	120	-58	1997	-57.5	-55.38	-56.60	-1.22
6233603	Jasper	1940	18	-14.7	1997	-10.92	-11.47	-10.50	0.97
3659102	Newton	2000	170	-98.76	2009		-87.77	-93.09	-5.32
6202902	Newton	pre 1999	24	-13.03	1999	-11.65	-10.25	-7.86	2.39
6203204	Newton	1979	645	-65.4	1994	-68.15	-65.52	-66.40	-0.88
6203301	Newton	1964	1050	-38.75	1992	-45.42	-36.47	-36.53	-0.06
6203704	Newton	1989	640	-169	1989	-172.78	-171.15	-171.68	-0.53
6210309	Newton	1964	1218	-61.38	1993	-65.93	-62.58	-63.25	-0.67
6210901	Newton	1951	300	-13.68	1964	-16.48	-16.10	-16.22	-0.12
6218103	Newton	1980	208	-32.3	1992	-33.99	-36.00	-34.65	1.35
6242909	Newton	1981	590	-39.15	1992	-36.03	-35.08	-36.80	-1.72
6243406	Newton	1981	598	-30	1981	-26.29	-24.76	-25.18	-0.42
6250304	Newton	1983	420	-40	1989	-35.58	-35.89	-36.65	-0.76
6104401	Tyler	1935	860	-169.39	1960	-168.71	-164.87	-164.37	0.50
6106705	Tyler	1984	288	-145	1984		-147.20	-148.02	-0.82
6112606	Tyler	1960	250	-121.64	1964		-123.00	-123.28	-0.28
6113802	Tyler	1951	582	-155	1953	-174.13	-163.66	-163.25	0.41
6115101	Tyler	1964	68	-31.66	1964	-33.09	-32.85	-32.62	0.23
6129203	Tyler	pre 1953	30	-22.73	1953	-15.38	-19.33	-15.25	4.08
6129503	Tyler	2008	250	-20	2008		-20.25	-19.33	0.92
6130419	Tyler	pre 1965	22	-13.01	1965	-3.62	-7.65	-4.02	3.63
6129804	Tyler		580				-27.23	-26.73	0.50

## Water Facts

- ◆ Approximately 2/3 of the water used in the home is used in the bathroom.
- ◆ It is estimated that less than 1% of the water treated by public water suppliers is used for drinking or cooking.
- ◆ It is estimated that the amount of water used to create the electricity used in the average household is approximately 250 gallons each day.
- ◆ Conservation and water management strategies are working. It is estimated that between 1985 and 2000 the amount of water used by industry decreased by 24%.
- ◆ It is estimated that it takes 2.5 billion gallons of water per day to irrigate the world's golf courses.
- ◆ Texas has been dry in 2023 but Nevada is the driest state in the nation getting only an average of 7 inches of rain each year.

## CALENDAR OF EVENTS

November 9, 2023	SETGCD—Regular meeting of the Board
November 10, 2023	Veterans Day—District office closed
November 23 & 24, 2023	Thanksgiving Break—District office closed
December 2023	SETGCD — Board Holiday, No Regular Meeting
December 25—29, 2023	Christmas Break—District office closed
January 1, 2024	New Years Day—District office closed
January 11, 2024	SETGCD—Regular meeting of the Board
January 15, 2024	Martin Luther King Jr. Day— District office closed
February 8, 2024	SETGCD—Regular meeting of the Board
February 19, 2024	Presidents Day—District office closed
March 7, 2024	SETGCD—Regular meeting of the Board
March 29, 2024	Good Friday—District office closed
April 11, 2024	SETGCD—Regular meeting of the Board

*“We think of our land and water and human resources not as static and sterile possessions but as life giving assets to be directed by wise provisions for future days” - Franklin D. Roosevelt*

Southeast Texas Groundwater  
Conservation District

P.O. Box 1407  
Jasper, TX 75951

Phone: (409) 383-1577  
E-mail: [jmartin@setgcd.org](mailto:jmartin@setgcd.org)

PLEASE  
PLACE  
STAMP  
HERE

«Mr#/Mrs/Ms#» «First» «Last»  
«Water System»  
«Street»  
«City», «State» «ZIP»