

Prairielands eLine

The Newsletter of the Prairielands Groundwater Conservation District

Summer 2019 | Vol. 5, Iss. 3

Public Notice: Protect Your Rights as A Water Well Owner - Apply For a Historic Use Permit by September 1, 2019 Deadline

If you currently own or operate a groundwater well in Ellis, Hill, Johnson, or Somervell county, you may be required to obtain a Historic Use Permit to protect your water rights. Please read the following notice to determine if you may be eligible for a Historic Use Permit.

The Prairielands Groundwater Conservation District ("District") was created by the 81st Texas Legislature in 2009 and has been delegated the responsibility of conserving, preserving, protecting, and recharging the groundwater in Ellis, Hill, Johnson, and Somervell counties under the authority of Chapter 36 of the Texas Water Code. State law requires the District to implement a permitting system for water wells.

The District is now accepting applications for Historic Use Permits from well owners and operators in Ellis, Hill, Johnson, and Somervell counties. The only way to ensure that the District may protect your rights and your investment in your well against future well owners and operators is to obtain a Historic Use Permit. If you are required to obtain a permit, you must file an application for a Historic Use Permit with the District by September 1, 2019, or you will forever lose your right to be protected as a historic user. Also, it is a violation of the District's Rules to operate a well without a permit if it is required to have one. Wells used solely for domestic residential (household) or livestock watering purposes are exempt from the requirement to obtain a permit, and do not need to file a permit application. Other types of small capacity wells may also be exempt from the District's requirement to apply for a Historic Use Permit. If your water well is not used exclusively for domestic or livestock use, we encourage you to promptly contact the District to ensure that you qualify for such a permit exemption in order to not risk missing the September 1, 2019, deadline and to avoid violating the District's Rules.

Historic users receive a greater degree of protection than non-historic users on the amount of groundwater that can be produced in the future. Don't miss your chance to protect your interest in the future to operate your water well if it is not exempt from the Historic Use Permit requirement. While you may choose to amend your Historic Use Permit application for a specified period of time as set forth in the District's Rules, it is critical to file an application with the District by the September 1, 2019, deadline.

For more information on how you can protect your rights as a well owner or operator or to obtain a copy of the District's Rules or a Historic Use Permit application form, please visit our website or contact:

Stephanie Rexrode, Records Administrator via email at stephanie@prairielandsgcd.org, call our office at 817-556-2299, or come by our office at 205 S Caddo St, Cleburne, TX 76031 inside the Liberty Hotel.

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Under the Weather: New TexMesonet Station Provides Valuable Data

A sprawling field of grass, wildflowers, and small trees sits just south of downtown Alvarado, TX, next door to the city's Well Site #6. To the untrained eye, this field looks just like any other piece of land. However, to those who work in meteorology, water management, or environmental science, that field holds endless possibilities.

In this field, under the sweltering June sun, a crew of meteorologists, hydrologists, environmental scientists completed the final steps of constructing a state-of-the-art weather station. The components of the station seem rudimentary, with just a 30-foot-tall tower, control panel box, solar panel, and two rain-catching buckets surrounded by a metal updraft screen. But these different structures contain high-tech and sensitive weather monitoring technology through the TexMesonet program.

The TexMesonet Program was established in 2016 following the severe flooding that ravaged regions of Texas. According to the summary on the TexMesonet website, a mesonet is a network of weather stations spaced close enough to each other to observe and track weather events, and collect data on atmospheric conditions, solar energy, soil moisture, and soil temperature. This data is used for weather forecasting, alternative energy development, agriculture, and for fire, flood, and freeze warnings. Measurement readings are updated every 15 minutes to the database.

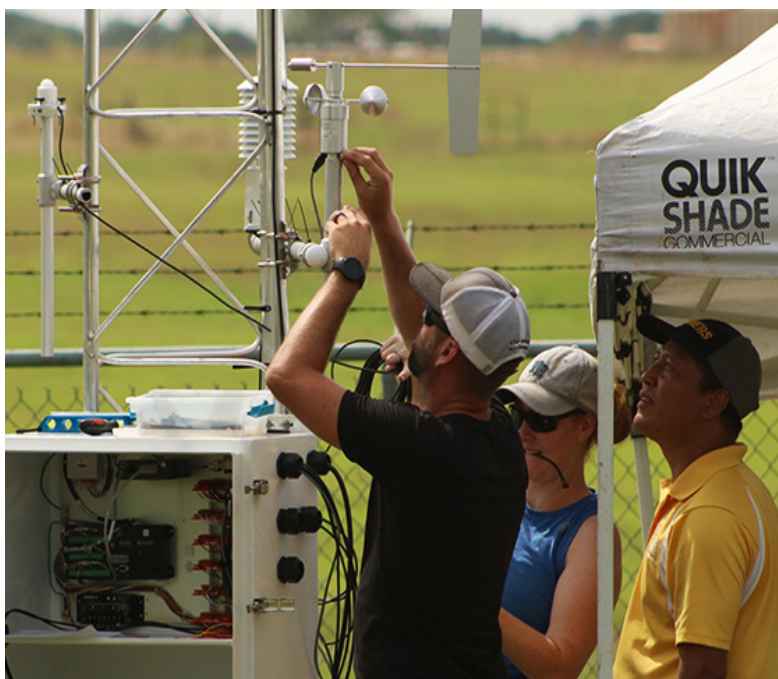
Dr. Leyon Greene, hydrologist and meteorologist with the groundwater division of the Texas Water Development Board and project lead with TexMesonet, said this open field south of town will allow for years of data.



“We look for open spaces like this because it provides longevity for the weather station, and allows it to get established,” Dr. Greene said. “There aren’t any tall buildings, large trees, or new neighborhoods being built next to this site that could cause the readings to be inaccurate.”

Prairielands Groundwater Conservation District's field technician, Michael Heath, was there on the site helping install the system. As an employee who spends most of his days in the field with boots on the ground in all areas of the District, Heath has been a helpful asset to Dr. Greene in helping identify ideal locations for weather stations.

"We like to work with groundwater conservation districts to know what areas might have ideal sites for one of these stations," Dr. Greene explained. "The District staff are very familiar with the region and have relationships with landowners."



This station will help Prairielands GCD monitor weather patterns and rainfall amounts in the District through the near realtime readings the TexMesonet network provides. Other benefits are drought monitoring, flood forecasting, irrigation recommendations for urban and rural areas, and enhanced agricultural productivity and water conservation.

Right now, this weather station is the first one to be installed within the District, with plans for stations to be installed in Hill County and Ellis County. The District is still seeking a location for Somervell County. According to Dr. Greene, the goal is to eventually have around six stations established within Prairielands GCD, with four primary stations and two secondary ones.

With all of the technology in these stations, they are worth about \$20,000 each. Besides the other benefits listed above, one of the other great aspects of these stations is how noninvasive they are. They only need 40 square feet of land to install the station, and the TWDB will handle the maintenance on the system, and in cases where they are installed on city-owned land, the city will help with landscaping and mowing. In instances where the station may be located around livestock or horses, there may need to be a small, sturdy fence around it to prevent any damage to the equipment.



If you have any questions about the TexMesonet program, you can find out more information and resources about the TexMesonet network by visiting: www.texmesonet.org/Overview.

Upcoming Events and Meetings

**AUGUST
19**

PGCD Board Meeting
9:00 a.m.
Liberty Hotel Board Room
Cleburne, TX

**SEPTEMBER
1**

**Prairielands GCD 10 Year
Anniversary**

**AUGUST
20-22**

Texas Groundwater Summit
Hyatt Regency Hill Country Resort
San Antonio, TX

**SEPTEMBER
15**

PGCD Board Meeting
9:00 a.m.
Liberty Hotel Board Room
Cleburne, TX

**SEPTEMBER
1**

**Historic Use Permit
Application Deadline**

**SEPTEMBER
29**

Farm Heritage Day
Ellis County Rural
Heritage Farm
Waxahachie, TX

Be sure to visit the homepage of our website to sign-up to receive our e-blast notifications so you never miss out on the latest news, events or updates about Prairielands GCD!

Update from the Groundwater Management Area 8 Meeting

A meeting of the Groundwater Management Area 8 (GMA 8) was held at 10:00 a.m. on Friday, July 26, 2019 at the Cleburne Conference Center. Established under Texas Water Code Chapter 36, GMA 8 is comprised of 11 groundwater conservation districts across 45 counties and was created to assist in joint planning for groundwater. Prairielands GCD's board president, Charles Beseda, serves as the District's representative on the planning group with Kathy Turner Jones serving as alternate on behalf of the District.

At this meeting, one of the of the key items of discussion was centered around possible action on updating the Northern Trinity Woodbine Groundwater Availability Model runs for the current planning cycle. Some of the important elements to consider for updating this model have to do with adjusted pumping amounts due to rule changes in some of the Districts, new permits, and balancing the highest practicable amount of pumping with conservation. The planning group agreed to distribute the TWDB Modeled Available Groundwater data sheet among the Districts to allow time to review and adjust pumping estimates.

Another item of business addressed was to plan a schedule to discuss the nine factors required by Texas Water Code Chapter 36 in the third round of Desired Future Conditions joint planning. The planning group voted to break the discussion of the factor presentations into three meetings in November 2019, February 2020, and May 2020 to allow for focused discussion of three factors at each meeting.

The last topic discussed at the meeting had to do with plans for updating and preparing the GMA 8 Explanatory Report for the third round of joint planning. It was decided the Explanatory Report from the second round of planning would be used as a starting point with updates made as needed, and a first draft of the new Explanatory Report will be presented in August 2020.

The next GMA 8 meeting is tentatively scheduled for early November 2019. The meeting date and agenda will be available on our website when it becomes available.

How to Maintain a Sustainable Landscape This Summer

Know When to Water

For two of our area's most popular warm-season grasses, Bermuda and St. Augustine, one way to determine if it is time to water is by inspection of the blades of grass themselves. If your grass lawn has wilting leaves and a blue-gray color throughout, that is a good indication of drought stress; your yard could use supplemental watering. Since 50-60% of your irrigation can be lost to evaporation, it is best to water when that is less likely to happen. Whenever possible, water between midnight and 8:00 a.m.

Know How Much to Water

Deep, infrequent watering creates deep roots. Shallow frequent watering creates short roots. As water evaporates from the soil surface, short-rooted plants and lawns will need water more often. Deep-rooted plants and lawns will be able to absorb water from deeper soil, over a longer period of time. This approach also reduces disease, helps insure good air movement down to the root system, and conserves water. Water lawns slowly, allowing water to reach a depth of 6 inches.

Utilize Native Plants

Native plants typically use less water, have fewer issues with pests, and thrive in less-than-perfect soil conditions. Along with less water, they also require less pesticides, herbicides, and fertilizer. An excellent online tool to help you refresh your yard using native and adapted plants is the Texas SmartScape website (www.txsmartscape.com). This website is free and has online landscape design functions and an easy-to-use, and frequently updated, plant database developed just for the North Central Texas area.

Prairielands Groundwater Conservation District Receives State Approval of Groundwater Management Plan

Prairielands GCD received notification on June 13, 2019 from the Executive Administrator of the Texas Water Development Board, notifying the District that its groundwater management plan had been approved as complete and in compliance in accordance with Texas Water Code § 36.1071(a) and (e).

The purpose of a groundwater conservation district's groundwater management plan is to identify the goals of the District and to document the management objectives and performance standards that will be used to accomplish those goals. The 75th Texas Legislature in 1997 enacted Senate Bill 1 to establish a comprehensive statewide water planning process and contained provisions that require each groundwater conservation district to prepare a management plan to identify the water supply resources and water demands that will shape the decisions of the District.

The process the Texas Water Development Board uses for reviewing a groundwater district's management plan includes analyzing the District's estimates of annual amounts of groundwater usage, annual amounts of aquifer recharge, projected surface water supply, and projected total demand for water. After addressing these topics, the management plan must provide management goals, methodology for tracking progress, management objectives, and performance standards used to evaluate the effectiveness of district activities.

The next five-year management plan review will be due on May 31, 2024. A full copy of the management plan can be found online at www.prairielandsgcd.org.

Prairielands GCD Sponsors 4-H Water Ambassador Program

Prairielands GCD was recognized on Saturday, July 13, at the 4-H20 Leadership Academy Kick-Off Banquet in Austin for being a sponsor of the Texas 4-H Water Ambassadors Program.

Founded in 2017, The Texas 4-H Water Ambassadors Program provides high school youth an opportunity to gain advanced knowledge and develop leadership skills related to the science, technology, engineering, and management of water in Texas.

The Leadership Academy is a 10-day tour of Texas exposing youth to a wide diversity of water resources, sensitive ecosystems, water quality concerns, and the applied research and technologies used to conserve this valued resource. Ambassadors gain insight into water law, policy, planning, and management as they interact with representatives from state water agencies, educators, policy-makers, and water resource managers. Ambassadors also gain an appreciation for the complexity of managing Texas surface and groundwater resources, its importance to local, regional, and state economies, and the importance of protecting this valuable resource for future generations.

Water Ambassadors commit a minimum 40 hours of service over a 12-month period following the Academy. Service hours include delivering water education at local 4-H clubs, schools, and community events. Ambassadors also earn credit by assisting local water utilities, water conservation districts and Extension agents as they conduct water outreach activities and demonstrations. Prairielands GCD has one ambassador within the District, **Brayden DeBorde** from Bardwell, TX, who has served as an ambassador since the program's start.

Applications for this program are typically accepted from March through May every year and are open to students entering their 9th through 12th grade school year.



Prairielands GCD Public Relations and Education Director, Sinclair Newby, at the 4-H20 Leadership Academy banquet on July 13, 2019.

Stay in the Know: State and Local Water News at a Glance

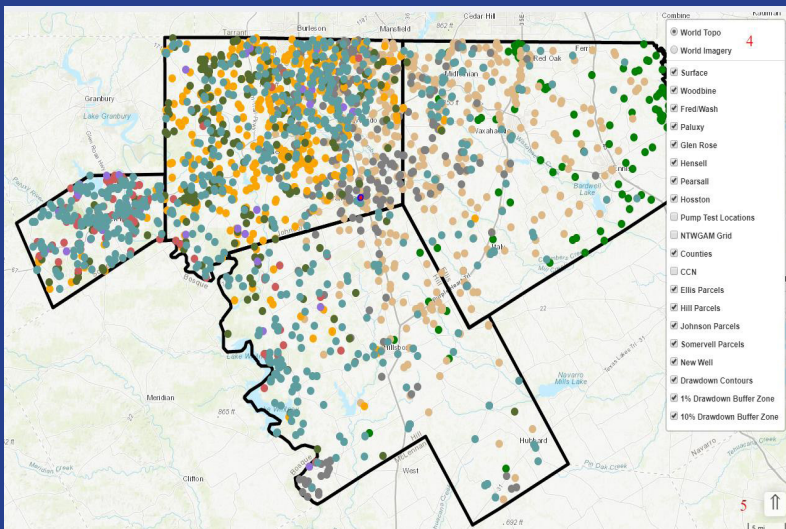
- Hays County community invests in rainwater and condensation harvesting. Click [here](#) to read more.
- The Texas Water Development Board is hosting public meetings across the state August 6–15 for comments on the new state and regional flood planning process and the new flood financing program. Click [here](#) to read more.
- Wimberley ISD breaks ground on new water-wise primary school that will be first of its kind in Texas. Click [here](#) to read more.
- A public Texas Well Owner Network training scheduled for August 8 in Lampasas. Click [here](#) to read more.

Well Spacing Simplified With New Interactive Spacing Tool

Prairielands Groundwater Conservation District is now using a new interactive well spacing tool to help determine if potential wells are in compliance with the Districts' spacing rule requirements. WSP, a globally recognized professional services firm, developed this interactive software tool that allows the District to assess if new wells would pass necessary spacing regulations. This tool will help improve the speed at which the District can assess potential water well sites for spacing and serve as a resource for compiling important data and information about these potential sites.

Prairielands GCD District Rules use the Cooper-Jacob method to determine impacts on nearby wells drilled in the same formation and their impacts to the property line on any well that is over 17.36gpm. The District allows no more than a 10% drawdown at the property line, and no more than 1% drawdown at the nearest well. The formula is used in this District because of the vast differences in aquifer properties throughout the counties within the District. Using this method, and the specifications described in the District Rules adopted on December 17, 2018, the District helps protect you and your neighbor's water resources and property values by ensuring the spacing between wells meets the acceptable spacing criteria.

To accomplish this, the new interactive well spacing tool uses an interactive map that allows for well locations to be added via the map or by entering well coordinates such as latitude and longitude. This tool allows for the location of new wells to access information from the TWDB Northern Trinity Woodbine Groundwater Availability Model (NTWGAM) to obtain hydrological data relevant to calculating the well spacing. While this tool is currently only used by District staff, we are working on making a version of this interactive tool available for public use on our website.



This screenshot from a function in the spacing tool shows a map of the registered wells within Prairielands GCD that will help determine spacing requirement eligibility.

Features:

- Interactive map of wells by aquifer, aquifer features, parcel boundaries, CCN boundaries, and political subdivisions relevant to spacing calculations.
- Well Spacing Calculation uses the methods outlined in the District's final rules to calculate max permit pumping.
- Cross-sectional schematic of the proposed well in the selected aquifer based on the NTWGAM hydrostratigraphy.
- Preview of preliminary spacing and calculations, map locations with the minimum well spacing distance, pumping rate, and anticipated 36-hr water level decline.

Learn a Little More About Us

Why was the Prairielands GCD created?

The Prairielands GCD was created in response to a finding by the Texas Commission on Environmental Quality that groundwater shortages were expected in Ellis, Hill, Johnson, and Somervell counties over the next 25 years. The TCEQ finding required local residents to create a groundwater conservation district, or else TCEQ would mandate one. Enabling legislation for the Prairielands GCD was passed in 2009.

How is the Board of Directors appointed?

Members of the board are appointed by the county commissioners in Ellis, Hill, Johnson, and Somervell counties. The board consists of 8 directors, 2 from each of the 4 counties. Initial board-member terms are staggered 2 and 4 years, followed by 4-year terms.

Why do I need to register my well?

Well registration provides the District with data needed to preserve and protect groundwater resources for current and future uses. All wells drilled after April 1, 2011, must be registered - those exempt from permitting as well as those subject to permitting. Exempt wells drilled prior to April 1, 2011, are encouraged to register at no cost so the District can protect that well with spacing regulations.

Wells exempt from metering and fee payment cannot produce more than 17.36 gpm, or are used solely for domestic, livestock, poultry, or agricultural purposes. Wells subject to permitting can produce more than 17.36 gpm with the proper spacing, individually, or as a system, and are used for any purpose other than domestic, livestock, poultry, or agricultural use.

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www.prairielandsgcd.org
817- 556-2299
205 S. Caddo St
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