

Prairielands eLine

The Newsletter of the Prairielands Groundwater Conservation District

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Prairielands GCD Board of Directors Adopt Amendments to District Rules

The Board of Directors for the Prairielands Groundwater Conservation District held a public hearing on October 21, 2019 to adopt amendments to the District Rules regulating water wells within the boundaries of the District, including Ellis, Hill, Johnson and Somervell Counties.

Over the months leading up to the meeting, the District staff and directors worked diligently to identify needed rules improvements in the course of implementing the District Rules that were adopted on December 17, 2018, and the Board's Rules and Bylaws Committee worked to develop recommended amendments to the District Rules to address such improvements.

Publication of the proposed amendments to the District Rules were made available to the public on September 27, 2019 and a public notice of a hearing on the consideration of adopting the amended rules was published in newspapers across the four county district no less than 20 days prior to the public hearing. At the public hearing, which was held in the meeting room inside the Liberty Hotel in downtown Cleburne, the Board received and considered oral and written comments from the public on the proposed amendments to the District Rules, and after taking up and considering the proposed amendments to the District Rules, the Board adopted the same during the regular board meeting of the District on October 21, 2019.

The adopted amendments to the District Rules address a number of issues, including increasing the initial annual groundwater production allowable per contiguous controlled acre, revising the fee payment structure for water use fees for non-exempt wells with an option to prepay annually or submit quarterly payment of fees for groundwater production, delayed implementation of the revised fee payment structure and revised reporting structure until January 1, 2021 and eliminating the requirement for submission of well completion report deposits by well drillers, as well as other non-substantive clarifying and conforming changes.

The adopted amendments to the District Rules are necessary to support the District's efforts in managing the groundwater resources within the boundaries of the District. Information about the public hearing and copies of the amended District Rules are available on the District's website at www.prairielandsgcd.org, and physical copies can be obtained by visiting the District office at 205 South Caddo Street in Cleburne.

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Now is the time to schedule a visit from the Prairielands GCD Water Education Trailer!

Also known as the “WET”, this is a FREE mobile classroom that features exhibits that provide demonstrations about rainwater harvesting, indoor water conservation tips, pollution prevention, how a water well works, and features a working aquifer model! The presentations included in the WET meet TEKS standards and provide STEM-based learning activities.

Since its development in 2015, over 10,000 adults and children have toured the WET at over 80 events. The WET is available for elementary, middle, and high school classes, teacher development, community events, meetings, and workshops. We are happy to tailor the presentations and curriculum to your specific needs. Please contact us to schedule a visit!



District staff travel with the WET to school and community events to share the great information available in the many models within the trailer.

Features:

- Rainwater harvesting model
- Model with local aquifers with working water features, well simulators, and pollution demonstrations, and a rainfall simulator.
- Model of a water well's components, structure and function.
- Interactive indoor water conservation station with household appliances.
- Station with educational videos about water conservation, the District, and aquifers.

4-H Water Ambassador Shares Experiences with Prairielands GCD Board of Directors



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. Prairielands GCD has been a proud sponsor of this program since it was created.

Brayden DeBorde, a junior at Rice High School in Ellis County, presented to the Prairielands GCD Board of Directors at a regular board meeting on December 16, 2019. DeBorde has served as a 4-H Water Ambassador since 2017, and says he got involved with the program in order to learn more about how to conserve water in his family's farming and ranching operations.

One of the highlights of his time as a water ambassador that he discussed in his presentation to the board was about the annual leadership academy that ambassadors attend during the summer. Brayden went through the Tier III Leadership Academy this summer. DeBorde described how the leadership academy is a weeklong tour of Texas that allows the ambassadors to learn more about a wide diversity of water resources, sensitive ecosystems, water quality concerns, and applied research and technologies used to conserve water. 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. This was one of the experiences that DeBorde discussed, and how he has been able to help educate others about water conservation. He said he has taught students ranging from kindergarten to high school, and enjoys serving in this role where he can help educate others and become involved in his community.

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. Visit <https://texas4-h.tamu.edu/projects/water/> for more information about this program.



Upcoming Events and Meetings

**December
23-25** PGCD Offices Closed
for Christmas

**January
12-15** Groundwater Management
Districts Association Meeting
Ft. Lauderdale, FL

**December
31** Deadline for Additional
Information for Historic
Use Permit Applications

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

**January
1** PGCD Office Closed for
New Year's Day

**January
30-31** Texas Alliance of
Groundwater Districts
Meeting

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!

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

- **Southwestern Travis County Groundwater Conservation District Passes with Almost 75% of the Vote** - Travis County residents voted to decide on the creation of a groundwater conservation district that would cover what was the last unregulated pocket of the Trinity Aquifer. [Read more.](#)
- **One Water: Projects in Motion** - The One Water concept re-imagines how communities manage traditional and non-traditional water sources in order to achieve the triple bottom line—providing benefits for humans, the environment, and the economy. [Read more.](#)
- **Water Systems Council Releases Financial Planning Resources for Rural Projects** - The Water Systems Council (WSC), a national nonprofit organization focused on household wells and water well systems, has launched a comprehensive online guide to financial and planning resources for rural community drinking water infrastructure projects. [Read more.](#)
- **High Plains Farmers Race to Save the Ogallala Aquifer** - By restoring soils and grasslands, farmers in the Texas Panhandle are conserving the last water beneath their feet. [Read more.](#)

A Guide to Conserving Water During the Holidays

More Friends and Family Means More Water

It might be the most wonderful time of the year, but once you get your water bill after the holidays you might not feel the same. As the holiday season approaches, and more people come to visit or stay at your home, more water will be used in bathrooms, kitchen, and depending on how long they come to stay, even in the laundry room.



Keeping Up in the Kitchen

Of course, family and friends coming to visit and the holidays coming up means there is probably going to be some cooking in your near future. There are several ways you can save water while still serving the perfect holiday meal:

- When it comes time to thaw food, try and set the food in the fridge a day or so prior to when you need it so you can avoid having to run water on frozen food to thaw it.
- Try to soak pots and pans instead of letting water run while you try and scrape them out or scrub them. Speaking of washing dishes, keep in mind that a dishwasher uses less water to clean a full load of dishes than washing them by hand.
- Use the garbage disposal sparingly. Compost vegetable and food waste instead and save gallons of water everytime you would have used the garbage disposal instead.
- Wash fruit and vegetables in a small to medium sized bowl of water instead of letting water run from the tap.

Avoid the Winter Weather Woes

When the temperatures drop, we have the option to stay inside warm and cozy by the fireplace. While you are inside enjoying your family time, you don't want to be worrying about outdoor water systems and faucets. Here are some ways you can winterize your outdoor water systems to prevent damage:

- Winterize outdoor faucets with insulated faucet covers, and insulate pipes with insulation sleeves, wrapping or using slip-on foam pipe insulation. Do not leave any gaps without insulation as cold air can affect the pipe in these spaces. Plastic piping is more tolerant of freezing than old copper or steel water pipes.
- Don't forget the hose bibs. Hose bibs are normally left unattended, causing them to burst in the middle of the night. Drain hose bibs and insulate with covers. Once this has been completed, deactivate bibs at the shutoff valve.
- Every faucet should have a shut-off valve inside your home or basement. Locate all shut-off valves for each corresponding faucet and shut the water off in a clockwise direction completely. Turn on all faucets to drain any water left in them. If the water continues to flow, check the valve to make sure it's off. Leave the faucet handle turned on throughout the winter.



How to Identify and Manage Abandoned Wells

The common phrase “out of sight, out of mind” can be applied to many things, but one thing it shouldn’t be associated with is reporting or plugging an abandoned well. According to the Texas Department of Licensing and Regulation, which licenses water well drillers and water well pump installers, an estimated 150,000 abandoned or deteriorated water wells statewide could be posing safety hazards and contributing to groundwater pollution.

One of the first things to consider is what constitutes a well as being “abandoned”. According to state law, a well is considered abandoned if it has not been used for six consecutive months. However, even a well that has not been used for six consecutive months can be considered in use, if it falls into one of the following two categories:

- A non-deteriorated well that contains the casing, pump, and pump column in good condition.
- A non-deteriorated well that has been capped. If you are uncertain whether your well is legally abandoned, consult a licensed water well driller, the Well Driller/Pump Installer/Abandoned Well Referral Program of the TDLR, or the local groundwater conservation district.

According to TDLR, abandoned or deteriorated water wells pose a threat to groundwater because they provide a direct conduit for chemicals and other surface contaminants, such as animal waste and pesticides, to directly enter aquifers. Uncapped wells also present a physical danger to animals and humans who can be severely injured or killed when they fall partially or completely into the well.



The Texas Well Owner Network (TWON) is a program offered through the Texas A&M AgriLife Extension Service for Texas residents who depend on household wells for their drinking water needs and focuses on protecting groundwater quality and aquifer integrity. Joel Pigg, Coordinator of TWON, said sometimes identifying an abandoned or deteriorated well can be difficult, but there are a few tell-tale indicators to look for.

“Some can be hard to identify, but if you think there might be an abandoned well on your property, some things you can do is to look for a depression in the ground or look for a pipe that is in the ground or even sticking out of the ground,” Pigg said.

Landowners can also look for plastic, steel, brick or concrete casing that comes out of the ground or look for a windmill with missing blades. If you locate an abandoned or deteriorated well, Pigg said you need to be sure and contact your local groundwater conservation district.

“Your local groundwater conservation district is there to help protect your groundwater resources,” Pigg said, “and they need to be made aware of the abandoned well so that the necessary steps can be taken to protect the water quality of the aquifer.”



If an abandoned well needs to be plugged, landowners may plug the well themselves or hire a licensed well driller or licensed pump installer to plug the well. If a landowner chooses to plug the well themselves, the landowner is required to plug the well in accordance with TDLR’s well plugging specifications and submit a State of Texas Plugging Report to TDLR within 30 days from the date the well was plugged.

As the colder weather comes this fall and winter, and the grass and brush on your property start to go dormant for the winter, take the opportunity to check your property for any of the signs of an abandoned well listed above, especially if you recently purchased the land. By helping identify and properly manage abandoned or deteriorated wells, we can work together to protect the quality and integrity of our groundwater.

Prairielands GCD Board of Directors Set Water Use Fee Rates for 2020

In a public meeting on October 21, 2019, the Prairielands GCD Board of Directors voted to keep 2020 water use fees set at \$0.20 per 1,000 gallons of groundwater pumped for any non-exempt well required to pay water use fees under the District Rules. In addition to the water use fee rate, the 50% export surcharge will still be in effect for any groundwater produced within the District that is transported for use outside of the District.

The District will also continue to provide its Online Monthly Fee Payment Incentive, which allows you to report your meter readings monthly on our database in order to receive a 10% discount. If you are interested in this incentive, be sure to report January 2020 meter readings online and send fee payments no later than February 29, 2020 in order to automatically enroll into the program. To remain eligible for this discount, simply make sure you submit meter readings and fees no later than the last day of the following month.

Though the reporting and fee structure for 2020 will remain unchanged from 2019, you may annually produce no more groundwater than the amount specified in your Historic Use Permit application, until the issuance or denial of your Historic Use Permit.

If you have any questions or would like some additional assistance, please contact Stephanie Rexrode, Permitting Program Coordinator, at 817-556-2299 or via email at stephanie@prairielandsgcd.org.

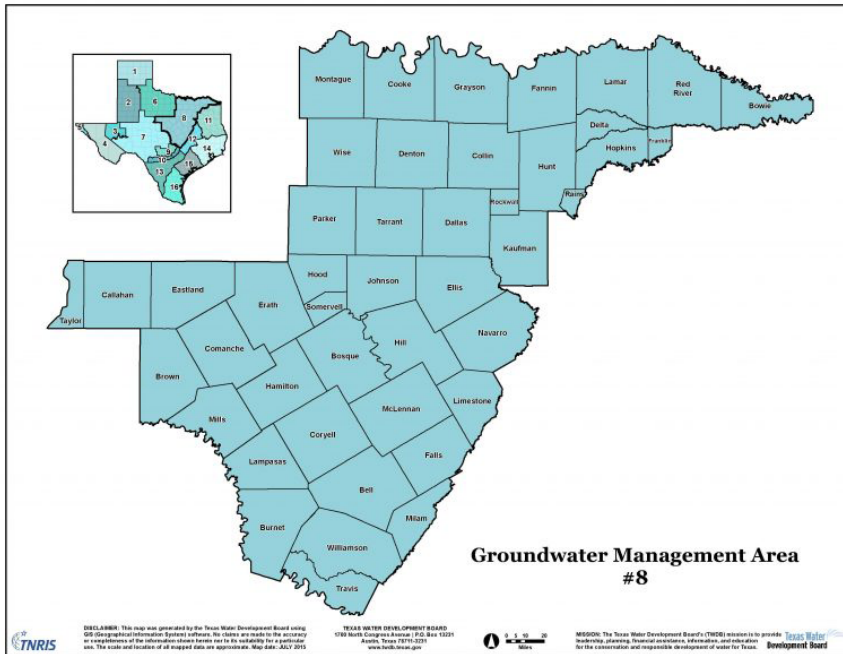


Jones Elected to Leadership of Texas Water Conservation Association

At the December 6, 2019 meeting, the Texas Water Conservation Association Board of Directors elected Prairielands GCD General Manager, Kathy Turner Jones, to serve as president-elect for the following year. As president-elect, Ms. Jones will work with the current board president and past president until she assumes the duties of the president in approximately July 2021.

The Texas Water Conservation Association is an association of water professionals and organizations in the state of Texas, representing river authorities, municipalities, navigation and flood control districts, drainage and irrigation districts, utility districts, municipalities, groundwater conservation districts, all kinds of water users, and general/environmental water interests. In this leadership role, Ms. Jones will help oversee TWCA advocate for water users by acting in an advisory capacity to encourage and inform Congress, the Texas Legislature and governmental agencies at all levels charged with responsibility for water resources, stimulating public awareness of water issues and activities at the state and national levels, and providing unique opportunities for professional growth and recognition in the field of water resources.

Groundwater Management Area 8 Meeting Update



A meeting of the Groundwater Management Area 8 (GMA 8) was held at 10:00 a.m. on Friday, November 22, 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 Board of Directors President, Charles Beseda, also serves on the board for GMA 8.

Discussion of Updates to Northern Trinity/Woodbine Groundwater Availability Model

Mr. James Beach of WSP discussed how Run 11 would be an update of the NTWGAM DFC/MAG Run. Mr. Beach

provided a summary from an August 8, 2019 meeting with TWDB about how the MAGs from this round would be used in the 2027 state water plan (for 2030-2080). The new run will be in 2010, and WSP will extend the DFC model run to 2080 and will update pumping as provided by GCDs and provide files to TWDB as early as possible. The run will account for the leap year in 2020. Mr. Beach said the subsidence vulnerability report should be used in considering the subsidence factor when setting DFCs in this round of joint planning. For non-relevant aquifers, which for the purposes of joint planning were identified as the Nacatoch, Blossom, and Brazos River Alluvium aquifers, he said RWPGs provide groundwater availability estimates. Mr. Beach said WSP has received pumping updates from Upper Trinity GCD and Southern Trinity GCD, with the latter having discrepancies between predicted water levels and calibration. WSP will work on completing the updated run and present the results at the February 26, 2020 GMA 8 meeting.

Discussion of Factors Listed in Section 36.108 of the Texas Water Code

The next item of business discussed were three of the nine factors listed in Section 36.108 of the Texas Water Code. Discussion of the nine factors has been broken down to three factors per meeting, with Environmental Impacts, Subsidence, Hydrological Conditions being discussed at this meeting.

- **Hydrological Conditions** – Water level data for consideration comes from the TWDB GWDB. A spreadsheet will be sent to all of the GCDs in GMA 8 to input water level data. The selection criteria for wells used in determining water level data was that the well had to have more than three measurements had to have been measured since 2000. These criteria reduced well locations with water levels from 8,461 to 677 wells used for mapping and hydrographs. WSP will provide GMA 8 with documents showing the water level data for posting and review.
- **Subsidence Impacts** - The key factors impacting subsidence are clay layer distribution, thickness, and

compressibility, the amount and timing of water level changes, and the lowest historical water level. The TWDB subsidence tool helps GCDs determine aquifer risk subsidence due to groundwater pumping. The tool is capable in identifying risk subsidence in all major/minor aquifers in Texas. It requires a geophysical log, adequate water level data, and the DFC. This log is used to determine aquifer top, bottom, thickness and clay thickness in the aquifer. This tool helps calculate and visualize the subsidence risk. Mr. Beach gave an example of a few wells from Prairielands GCD and nearby areas close to the District, and the three wells he calculated for subsidence risk ranged from 7.66 to 8.59 in their subsidence risk score, with the scale being zero being low risk and 10 being high risk. Mr. Beach showed a map indicating the subsidence risk across GMA 8, with the western portion of the GMA being in low-medium risk, and north central portion of the GMA as medium-high risk.

- **Environmental Impacts** – Mr. Beach explained how the southern portion of GMA 8 has the greatest density of springs, most are in the Washita/Fredericksburg, which includes Edwards BFZ. The springs flow when the water level elevation of the aquifer is higher than the spring elevation. Water level declines reduce spring flow in the model. The NTGAM includes boundary conditions to represent springs, ephemeral streams, and perennial streams. Water budgets from Run 10 in existing explanatory report indicate reduced spring flows and baseflows where DFCs include water level decline in aquifer outcrop areas. Mr. Beach showed a table with the summary of impacts to springs and perennial/ephemeral springs and their percent difference from 2010 to 2070. In Prairielands GCD, the estimated percent differences were a decline of 29% in perennial streams, 19% of ephemeral streams, and 20% decline of springs.

GCD Rules – Differences and Similarities Based on Survey Results

A survey with 99 questions about GCD rules were sent to the GCDs in GMA 8. Of the questions used to identify the similarities between the districts, 52 questions were answered the same, and 14 were different, indicating 97% similarity. It was suggested to send out the questionnaire again with just the questions that were not answered the same in hopes of clarifying more similarities or pinpointing the differences. The board agreed to move forward with the next phase to look closer at similarities and differences between the rules of the GCDs.

Update from Texas Water Development Board

The representative with TWDB said internal discussion lately has been focused on the next round of planning. Some areas of discussion involve looking at slivers of some aquifers that fall outside of GMA 8 border and seeing how the borders can be changed to include or exclude those. He said there are three slivers in GMA 8. As an example, one is the Edwards Trinity Plateau. He said a suggestion would be curling the border to remove the Edwards Trinity Plateau from GMA 8, and with other slivers the aquifer boundaries could be used as snap points. It was decided to add this as an agenda item on the next meeting with more detailed maps and descriptions of the slivers. Another item discussed was expanding GMA 8 into GMA 6 territory. GMA 7 and GMA 8 do plan for DFCs on Trinity Aquifer but only in Central Texas. A proposition was for GMA 8 to include the Trinity Aquifer in Taylor County.

Agenda Items for February 26, 2020 Meeting

- GAM run results
- Discussion of three more factors:
 - Aquifer Uses or Conditions
 - Supply Needs and Management Strategies
 - Private Property Rights.
- Further discussion of aquifer slivers and adjusting GMA boundaries
- Other items as needed

About Prairielands GCD

The Prairielands Groundwater Conservation District 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.

The Mission of the Prairielands Groundwater Conservation District (“District”) is to develop rules to provide protection to existing wells, prevent waste, promote conservation, provide a framework that will allow availability and accessibility of groundwater for future generations, protect the quality of the groundwater in the recharge zone of the aquifer, insure that the residents of Ellis, Hill, Johnson, and Somervell Counties maintain local control over their groundwater, and operate the District in a fair and equitable manner for all residents of the District.

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