

Prairielands eLine

The Newsletter of the Prairielands Groundwater Conservation District

Fall 2025 | Vol. 11, Iss. 3
September 04, 2025

Friendly Reminder: District Authorization Required Before Substantially Altering a Well

Prairielands Groundwater Conservation District (“District”) has been entrusted by statute with the responsibility of managing groundwater resources in Ellis, Hill, Johnson, and Somervell counties. To protect these shared resources—and **help you avoid compliance issues**—we want to take a moment to remind all well owners, pump installers, and drillers to obtain District approval before substantially altering the capacity of a well. Approval may take the form of a well registration/registration amendment or an operating permit/permit amendment, depending on your situation.

Maintenance/Repair (No Additional Approval)

Routine work to keep a well operating safely and properly **does not** require additional approval **so long as it does not increase capacity**. Examples include water-quality and sanitary maintenance and replacing/repairing components (including pumps) without upsizing performance.

What Counts as “Substantially Altering” (Approval Required)

A well is considered “substantially altered” if its maximum production capacity is increased to a level that exceeds:

- **Registered wells:** the maximum capacity listed in the approved well registration (unless the well is 17.36 gallons per minute (gpm)

or less both before and after the alteration).

- **Non-registered wells:** the maximum capacity the owner can prove existed before January 1, 2019, when current spacing rules went into effect.

Note: A well that was previously exempt loses its exempt status if it is substantially altered or used for a non-exempt purpose. If unsure of the maximum capacity a well is registered for, please feel free to contact the District for assistance.

When is an Operating Permit Required?

An Operating Permit from the District is required for:

- Drilling, equipping, completing, or substantially altering any non-exempt well without a Historic Use Permit.
- Substantially altering any well with a Historic Use Permit.

Quick Checklist Before You Start:

1. **Confirm your current registered capacity** (or pre-2019 capacity if not registered).
2. **Call the District to verify what approval** (registration/permit) applies to your project.
3. **Submit the required application** and receive approval **before beginning work**.

Questions? We are here to assist.

Contact **Kaylin Garcia**, Permitting
Director at (817) 556-2299 or kgarcia@prairielandgcd.org

In This Issue:

- Bringing Water Education to Your Classroom, Community, or Event - Pg. 2
- Understanding the Interaction Between Surface Water and Groundwater - Pg. 4
- Board Spotlight: Thank You, Director Kathy Tucker - Pg. 5
- Staff Spotlight: Welcome Sarah Clark - Pg. 5



Bringing Water Education to Your Classroom, Community, or Event

With the start of fall and a new school year underway, Prairielands Groundwater Conservation District reaffirms its commitment to advancing water education and conservation awareness across Johnson, Ellis, Hill, and Somervell counties. The District provides complimentary educational programs and hands-on learning opportunities designed to inform, engage, and inspire. These programs are available to schools, community organizations, civic groups, public events, and professional workshops.

The Water Education Trailer (WET)

The Water Education Trailer (WET), launched in 2015, is a mobile classroom that brings science to life through interactive exhibits and live demonstrations. It highlights important topics such as:

- Groundwater protection and aquifer health
- Rainwater harvesting and water reuse
- Pollution prevention and water quality safeguards
- A working aquifer model that shows how water moves underground

Since its debut, WET has engaged more than 10,000 participants at over 80 events. Its reach continues to expand, delivering water education directly to classrooms, professional settings, and community events.

Designed for Learning and Engagement

All presentations are developed to support STEM-based learning and align with TEKS standard. For 6th graders, the aquifer model reinforces Earth Science TEKS by demonstrating how pollution affects groundwater and how it moves through soil. Visual displays of household appliances further show students practical ways to conserve water and why conservation is important. Our presentations enhance classroom instruction while also enriching community programs and professional workshops. To strengthen classroom connections, the District partners with Tinker LLC to provide curriculum resources that integrate with science instruction. This partnership gives teachers and students high quality lessons that build a deeper understanding of groundwater science and conservation.

These programs are not limited to schools. They are also valuable for community groups, civic organizations, and professional audiences. District staff work with organizers to tailor each presentation to the needs of the audience. Whether the focus is scientific principles, conservation practices, or practical applications, every program is designed to encourage awareness, stewardship, and action.



Bringing Water Education to Your Classroom, Community, or Event continued on page 3

Exhibits and Demonstrations

Participants gain valuable insights through hands on learning experiences such as:

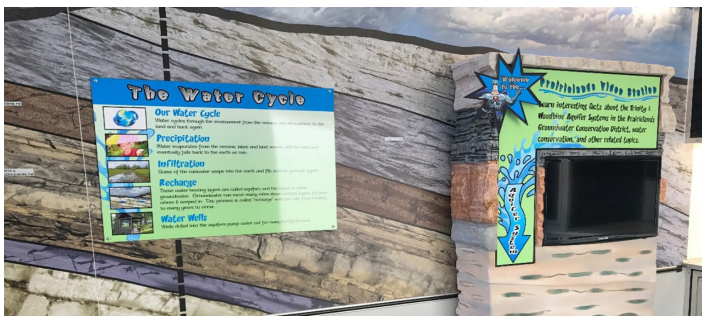
- Water cycle demonstrations showing the interaction between surface water and groundwater
- Activities examining point source and nonpoint source pollution
- Models of local aquifer formations, soil types, and permeability
- Indoor and outdoor water conservation strategies
- The science and technology behind water wells and infrastructure
- Rainwater harvesting systems and their benefits

Why Groundwater Education Matters

- **Environmental Awareness:** Builds understanding of how groundwater sustains ecosystems and why protection is essential
- **Water Conservation:** Encourages responsible practices to help ensure reliable water supplies for the future
- **Health and Safety:** Highlights the importance of clean groundwater for safe drinking water
- **Scientific Understanding:** Introduces geology and hydrology concepts that connect learners to natural processes
- **Problem Solving:** Promotes innovative thinking to address challenges such as drought, pollution, and resource management
- **Community Engagement:** Inspires individuals to become advocates for water stewardship in their families, schools, and communities

Schedule a Visit Today

The need for water education has never been greater. This fall is an ideal time to bring the Water Education Trailer or schedule a presentation for your school, organization, or community event. Together, we can empower individuals to make informed choices that protect and preserve our shared water resources. To bring the Water Education Trailer to your event, or to schedule a classroom presentation contact **Sarah Clark** at sclark@prairielandsgcd.org or 817-556-2299.



Understanding the Interaction Between Surfacewater and Groundwater

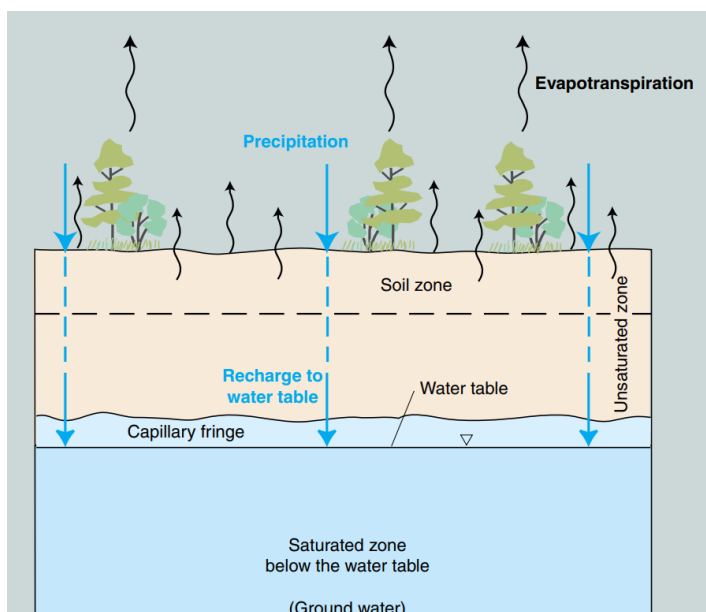


Image courtesy of the U.S. Geological Survey, Circular 1186 (1999)

The interaction between surface water and groundwater is a critical part of the water cycle and plays a key role in the health of our rivers, lakes, springs, and aquifers. These two systems can be closely connected, and the way they interact is influenced by local geology, climate, and human activity. Understanding how they work together helps us better protect and manage our water resources.

How Water Moves

After precipitation occurs, water flows into rivers, lakes, or wetlands, while also seeping into the ground. This water moves downward through soils and permeable geologic formations to recharge underground aquifers. These processes, called infiltration and recharge, are how surface water contributes to groundwater supplies.

Water has the tendency to follow the path of least resistance, flowing in the direction that requires the least energy. This helps explain how and where surface water and groundwater exchange.

Losing and Gaining Streams

The direction of flow between surface water and

groundwater is related to the difference in hydrostatic head pressure (whichever fluid is higher or lower).

When the water table is lower than a lake or stream, water flows away from the surface water and infiltrates local groundwater systems. This is referred to as seepage or a “losing stream”. The opposite effect is observed when the water table is higher than the surface water. Groundwater can flow into rivers, lakes, or wetlands and is often referred to as a “gaining stream”. Springs and baseflows in rivers during droughts are often associated with these groundwater discharges.

The Role of Geology

The magnitude of these interactions is dependent on local geologic conditions that control the degree of connectivity between surface water and groundwater.

If a surface water body and shallow unconfined aquifer are connected by permeable geologic formations (sand, gravel, fractured rock, or karst limestone) these effects are enhanced. Changing lake levels or river flows could influence local wells and the amount of infiltration, recharge, or discharge occurring.

However, when surface water is disconnected from groundwater by impermeable layers (clay, shale, or non-porous limestone) groundwater levels are less influenced by surface water processes and more affected by local pumping and precipitation in the recharge area of the confined aquifer.

Want to Learn More?

Visit Prairielands Groundwater Conservation District’s Water Education Trailer to explore hands-on demonstrations about aquifers, conservation, and the water cycle.

Also check out our “[Aquifer and Indoor Water Conservation Demonstration](#)” video on YouTube!

Board Spotlight: Thank You, Director Kathy Tucker



Pictured (L-R): Kathy Turner Jones, General Manager; Kathy Tucker, Director; and Maurice Osborn, Board Secretary/Treasurer.

County and the District ever since.

In addition to her board service, Ms. Tucker served on the **Planning & Development Committee** (*the Planning & Development Committee ensures accurate implementation of the District's Management Plan, compliance with Board-adopted requirements, and continued development of the District's well monitoring program.*) Her steady leadership and thoughtful input helped advance important planning milestones and strengthened the District's long-term approach to groundwater stewardship.

On behalf of the Board and staff, **thank you, Kathy Tucker**, for your dedicated service, professionalism, and commitment to the communities we serve. We are grateful for the time and care you invested in this role and for your contributions to the District's mission.

As Ms. Tucker steps back to **focus on family**, we wish her the very best in this next chapter and we hope she'll stay close as a friend and champion of responsible groundwater management. **Thank you.**

Staff Spotlight: Welcome Sarah Clark

We are pleased to welcome Sarah Clark, who joined the District in July as Public Relations and Education Coordinator.

Sarah is a graduate of Texas Tech University and brings a diverse professional background to her role. She began her career as an insurance agent, where she gained valuable experience in client service and relationship building. She later transitioned into education as a classroom teacher, gaining valuable expertise in both outreach and instruction.

Sarah grew up in Cleburne and remained in the area with her family. She and her husband, Dustin, have two children. Their daughter recently graduated from Texas Tech University, and their son is a senior at Rio Vista High School.

At Prairielands GCD, Sarah looks forward to engaging with the community to promote groundwater conservation and strengthen outreach efforts.

We are proud to have Sarah as part of the Prairielands GCD team.



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 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.

Upcoming Events and Meetings

September

- 15 PGCD Board Meeting**
9:00 a.m.
208 Kimberly Dr
Cleburne, TX 76031
- 16 Grandview Chamber of Commerce Presentation**
Grandview, TX 76050
- 21 Water Education Trailer**
Ellis County Rural Heritage
Farm Waxahachie, TX

October

- 13 Columbus Day**
PGCD Office Closed
- 20 PGCD Board Meeting**
9:00 a.m.
208 Kimberly Dr
Cleburne, TX 76031
- 15 Grandview Water Wise Program**
Grandview, TX 76050

General Manager
Kathy Turner Jones

Board:

President
Charles Beseda
Hill County

Vice President
Paul Tischler
Johnson County

Secretary/Treasurer
Maurice Osborn
Ellis County

Director
Marty McPherson
Somervell County

Director
John Curtis
Somervell County

Director
Brad Daniels
Hill County

Director
Barney McClure
Johnson County

Be Sure to Connect with Us on Social Media!



Facebook
@prairielandsgcd



YouTube
Prairielands Groundwater
Conservation District



X
@GCDPrairielands



LinkedIn
Prairielands Groundwater
Conservation District



www.prairielandsgcd.org
817-556-2299
208 Kimberly Dr
Cleburne, TX 76031