Private water well screenings set for Plum Creek Watershed August 4-5

Residents in Caldwell and Hays Counties are invited to participate in water well screenings and results meetings

The Texas Well Owner Network, TWON, is hosting an upcoming event August 4-5 to allow residents to have their well water screened: the "Well Educated" water well screening will be held at the Demonstration Barn at the Luling Foundation.

Joel Pigg, Texas A&M AgriLife Extension Service program specialist and TWON coordinator, College Station, said the Texas Well Owner Network program is for Texas residents who depend on household wells for their water needs.

"The TWON program was established to help well owners become familiar with Texas groundwater resources, septic system maintenance, well maintenance and construction, and water quality and treatment," he said. "It allows them to learn more about how to improve and protect their community water resources."

Water samples will be screened for contaminants, including total coliform bacteria, *E. coli*, nitrate-nitrogen and salinity. Well owners are encouraged to bring water samples from all of the wells on their property and before and after any water treatment systems that may be attached to the wells.

Water sampling and meeting information

— Caldwell County: Tuesday, August 4th, water samples can be dropped off from 8:30-11 a.m. at the AgriLife Extension office for Caldwell County, 1403 Blackjack Street, Suite B, Lockhart or the Plum Creek Conservation District, 1101 W. San Antonio Street, Lockhart or the Luling Foundation Farm, 523 Mulberry Ave, Luling. There will be a $15 per sample cost for the water well screening.

— Hays County: Tuesday, August 4th, water samples can be dropped off from 8:30-11 a.m. at the AgriLife Extension office for Hays County, 200 Stillwater Road, Suite 102, Wimberley. There will be a $15 per sample cost for the water well screening.

The follow-up educational program will be from 8:30 a.m. till 12:00 p.m. on Wednesday, August 5th at the Luling Foundation Demonstration Barn, 523 Mulberry Avenue, Luling. Topics covered will include: water well basics, water wells 101, septic systems, watwellsuality and sample results.

Sampling instructions

A water sample form must be completed for each sample submitted. Follow the directions below for sample collection: (visit our website https://twon.tamu.edu/ for a printable version of the collection instructions and the sample information sheet)

- Pour out the contents out of a new bottle of water, 12-20 ounces, and fill it with a water sample from your private water well.

- Take the sample from the spigot/hose bib nearest to the wellhead. Remove the water hose if one is present and take the water directly from the spigot/hose bib.

- If an inside faucet is used, remove the aerator on the faucet before making the collection. Rinse and dry the exterior of the faucet to prevent contamination of the water sample.

- If possible, wipe off with a Clorox-type towelette or paper towel wetted with a light bleach solution to kill any bacteria present on the faucet. Allow the cleaning solution to dry before sampling.

- Turn the water full force and let it run for 2 minutes or until you hear the pump start running.

- Reduce the water flow to a small stream, then take the sample.

Refrigerate the sample and transport it to the drop-off location in an ice chest as soon after collection as possible. It is best to collect the day the sample is submitted. Otherwise, make sure the sample is kept cool and out of direct sunlight. The sample should be collected within 24 hours of submission to ensure accurate results.

“We encourage you to bring samples from all wells on your property,” Pigg said. “Also, many participants who have water treatment equipment take samples before and after the treatment to make sure the equipment is functioning properly.”

Each sample should be labeled with your name, and if you bring more than one sample, the label should indicate which well the sample came from.

Private water wells should be tested annually, he said. The samples will be screened for contaminants, including total coliform bacteria, *E. coli*, nitrate-nitrogen, arsenic and salinity.

Pigg said it is essential for those submitting samples to be at the appropriate follow-up meeting to receive results, learn corrective measures for identified problems and improve their understanding of private well management.

Well water contaminants, concerns

Joel Pigg, AgriLife Extension program specialist, Bryan-College Station, said research shows the presence of *E. coli* bacteria in water indicates that waste from humans or warm-blooded animals may have contaminated the water. Water contaminated with *E. coli* is more likely to also have pathogens that can cause diarrhea, cramps, nausea or other symptoms.

The presence of nitrate-nitrogen in well water is also a concern, and water with nitrate-nitrogen at levels of 10 parts per million is considered unsafe for human consumption, he said.

“These nitrate levels above 10 parts per million can disrupt the ability of blood to carry oxygen throughout the body, resulting in a condition called methemoglobinemia,” Pigg said. “Infants less than 6 months of age and young livestock are most susceptible to this.”

Salinity, as measured by total dissolved solids, will also be determined for each sample, he said. Water with high levels may leave deposits and have a salty taste. Using water with high levels for irrigation may damage soil or plants.

To learn more about the programs offered through the network or to find additional publications and resources, visit https://twon.tamu.edu. For more information on the water screening contact Pigg at 979-321-5946 or j-pigg@tamu.edu.

The screenings are presented by Guadalupe-Blanco River Authority, Plum Creek Watershed Partnership, AgriLife Extension, and Texas Water Resources Institute, TWRI, in partnership with the AgriLife Extension.

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