

Private Water Well Concerns

- More than a million private water wells in Texas provide water to 2.3 million people in rural areas and to those living on small acreages at the growing rural-urban interface.
- Private water wells have a greater risk of exposure to compromised water quality than do public supply water wells, which are monitored according to the Safe Drinking Water Act.
- Nitrates and *E. coli* bacteria are the most common contaminants of private water wells.

AgriLife Extension's Response

- The Texas Well Owner Network (TWON) was created by the Texas A&M AgriLife Extension Service in cooperation with the Texas State Soil and Water Conservation Board (TSSWCB) and other collaborating agencies and organizations.
- The program is designed to deliver science-based, community-responsive education curricula focused on protecting groundwater quality and aquifer integrity. It complements the successful Texas Watershed Stewards Program, which also emphasizes best management practices.



- TWON offers two programs: "Well Educated," a full-day educational curriculum, and "Well Informed," a one-hour curriculum.
- TWON teaches Texans about water quality and best management practices for protecting their wells and surface waters, with the goal of averting off-site contaminants away from surface waters, preventing contamination of underlying aquifers, and safeguarding the health of landowners and their families.
- Since TWON began screening well water in 2011, private water well screenings and wellhead protection trainings have been conducted for more than 10,100 private water well managers through 73 "Well Educated" and 120 "Well Informed" events in 200 counties and in Mexico.
- Overall, primary (potential health risk) or secondary water quality standards were exceeded in **58%** of 829 private water well samples screened by TWON in 2021. *E. coli* was detected in 5% of samples **while 8% exceeded water quality standards for nitrate.**

Economic and Environmental Impacts

- One year after the program, 97% of participants with wells near contamination sources (pet shelters, livestock pens, etc.) had moved the sources; **67%** with abandoned wells had plugged or capped those wells; and **66%** with septic tanks needing pumping had pumped their tanks.
- Participants of TWON programs in 2021 were asked to self-assess the value of the program. The average response from more than 820 participants was \$952, or a total of \$789,000.
- For more information, please visit <http://twon.tamu.edu>.