

Q&A: Which is Better Well Water or Municipal Water?

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I have heard this question all my life and I still don't think there has been a definitive answer for it. However, I am going to attempt to enlighten you a little, but I am afraid you will still have questions once I am through. A water study is being conducted by USDA. The study, "Water Issues in Georgia: A Survey of Public Perceptions and Attitudes about Water," was part of a national water effort funded by the United States Department of Agriculture. The goal of the larger project is to collect views on water issues from people around the country. So far, the survey has been conducted in 35 states.

The results of the Georgia survey were slightly surprising, said UGA Cooperative Extension engineer Mark Risse. "In general, it came out in the survey that people really place an importance on clean water," he said. "Anything that had 'clean' in it ranked very high." By surprising I believe that Dr. Risse means people are more concerned about quality than quantity.

All of this discussion leads us into the question that has been posed. Groundwater accumulates differently all over the world. Take for instance the Ogallala aquifer that is the giant aquifer that supports Middle America from South Dakota down to Texas. The water that collects in it supports one of the largest agricultural regions on earth, yet the aquifer is drying up and in many areas it is no longer available. The problem . . . it cannot be immediately recharged. The water that has collected in it has taken millions of years. Water reaches the Ogallala slowly as it matriculates over a period of 500 years from the Rocky Mountains. Therefore, they are basically mining water since they are taking out much more water than is being returned.

The groundwater that we enjoy here in Georgia is collected in several different aquifers with the largest being the Floridan (not the Floridian!). Although our aquifer is not as large as the Ogallala, we can receive recharge immediately in areas where the aquifer isn't confined by a layer of clay or rock. This explains why we can be in the jaws of a drought and recover completely from a series of large rains. Most of our aquifers flow vigorously as well. There are areas in the Floridan where water has been shown to flow over 20 miles a day! This speaks well for quantity, but quality is a whole other issue. If it does flow like that does this mean your water could be tainted by an unidentified chemical dump several miles upstream from you? I would say there is evidence to support that thought. I heard a hydrologist say one time that we "know more about the moon and stars than we do about the aquifers and things that are beneath us."

Just because water does not "taste" certainly doesn't mean it is free of contaminants. In fact, all water has some contaminants, it is just that some are more toxic to us than others. The fact that we receive instant recharge and the water can travel long distances means we are also exposed to many more pollutants. If there are pollutants (and there are) in the recharge areas or the seeps along poorly installed well casings, etc. then they are very likely to end up in our groundwater.

If your water comes from a public or municipal system, it is regularly tested for contaminants regulated by federal and state standards, such as microbial pathogens, radioactive elements and certain toxic chemicals. These are the contaminants that affect the safety of water and may cause health problems. Since public and municipal systems are regulated, a home water treatment system is seldom needed for health protection. Water quality problems such as hardness, corrosivity, foaming, staining or bad tastes,

smell or color are undesirable. However, these factors do not necessarily make the water unhealthful. The water that is tested at a municipality water treatment facility however can still become contaminated if there is an unforeseen problem with the delivery system beyond where it was collected to be tested or beyond where the delivery system becomes the piping system of the homeowner.

If your water supply is a private well, you are personally responsible for testing and treating the water to avoid health risks. One of your major concerns should be microbial pathogens (bacteria, virus and parasites) in the water supply. This is especially important if your well is near a septic tank, or an area subject to animal wastes or nitrates. It is important to have your water tested for these potential health concerns. Unfortunately, there is no test that checks for everything and water testing can get expensive, however basic tests for the major pollutants should be taken. You can get filtration systems installed, but this should be done in collaboration with testing. Keep in mind that many of the systems that are commercially available do not remove all pollutants and must be evaluated and compared based on your needs. As far as testing is concerned the local health department or the UGA Cooperative Extension can have your water tested. Now, which is better well water or municipality water? The world may never know.