

DODGEVILLE

For immediate release

Contacts:

Iowa County: Katie Abbott, Katherine.Abbott@iowacounty.org, 608-930-9893

Grant County: Lynda Schweikert, Lynda.Schweikert@wi.nacdnet.net, 608-723-6377 #4

Lafayette County: Terry Loeffelholz, Terry.Loeffelholz@lafayettecountywi.org, 608-776-3836

New groundwater study in southwest Wisconsin completes first round of well samples

DODGEVILLE — The first round of well tests in the Southwest Wisconsin Groundwater and Geology Study of Grant, Iowa, and Lafayette Counties showed that 42 percent of the wells exceeded the state standards for one or more contaminant. The study tested 301 well samples throughout the three counties for total coliform bacteria, *E. coli* bacteria, and nitrates.

Thirty-four percent of the samples were positive for total coliform and 4 percent were positive for *E. coli*. Any level of total coliform or *E. coli* is considered unsafe, although total coliform generally is not harmful.

Total coliform is found in the environment (such as soil) and its presence is sometimes linked to a plumbing or well issue. However, it is used as an indicator that other contaminants could be present. Researchers will take additional samples from a random selection of contaminated wells to determine if any other pathogens are present and if they are from humans, cattle, or pigs.

Sixteen percent of the samples exceeded the health standard of 10 parts per million (ppm) for nitrate-nitrogen. High nitrate levels in drinking water is a health concern, especially for babies and pregnant women. Installation of a reverse-osmosis system is one common method to mitigate nitrate in drinking water.

Individual well owners who participated in the study received the results for their own wells during the last half of December. Those with bacteria-positive wells were advised to re-test their wells to confirm contamination, and then disinfect their wells if the second test was also positive. This is a relatively low-cost process.

“These results show how important annual well testing is for rural landowners,” says Iowa County Conservationist Katie Abbott. “They also show how much more we have to learn.” Well design, failing septic systems, soil type, bedrock, and land use are all potential contributors to well contamination.

“We are collecting good data to better understand drinking water quality, contaminant sources, and risk factors in our area. We don’t want to make assumptions about where contaminants are coming from or what needs to be done,” says Abbott. “Once the study is complete, we’ll work with local stakeholders to come up with solutions based on what we’ve learned.”

The well test results are higher than state averages but mirror what has been seen in Southwest Wisconsin over the last 20 years.

“I’m not surprised by these contamination levels,” said State Geologist Ken Bradbury, Director of the Wisconsin Geological and Natural History Survey. “The shallow bedrock and thin soils in southwest Wisconsin make this a vulnerable setting from the standpoint of groundwater contamination. Now that we’re beginning to get some solid data sets we can begin to determine the most important factors controlling well vulnerability.”

Samples were collected November 9–10 by homeowners across the three counties. Wells were randomly selected to assure an accurate estimate of contamination.

“I appreciate the landowners who participated in the first round of testing. It shows how much these people value their drinking water and I am hopeful we have greater participation for the second round of testing in the spring,” said Lynda Schweikert, Administrator of Grant County’s Conservation, Sanitation, and Zoning Department.

The study was initiated by Grant, Iowa, and Lafayette Counties in collaboration with researchers from the U.S. Department of Agriculture, the Wisconsin Geological and Natural History Survey-UW Extension, and the U.S. Geological Survey. Support for the study comes from the counties and agencies involved as well as other organizations, including the Lafayette Agricultural Stewardship Alliance and the Iowa County Uplands Farm-led Watershed Group.

The two-year study will collect a second set of samples in the spring and then will evaluate factors that contribute to groundwater contamination. “Once we determine how widespread contamination is,” said Joel Stokdyk with the USGS, “we’ll look at causes.” Scientists will evaluate factors that contribute to private well contamination, like precipitation, geology or bedrock, and well characteristics. The project will be completed in 2020.

For more information on the study, visit <https://iowa.uwex.edu/community-development/swigg/> or contact the Iowa, Grant, or Lafayette County conservation departments.