Water Studies Backgrounder

Driftless Area Water Study

Background

The Driftless Area Water Study (DAWS) was created based on the water study that is being conducted in Grant, Lafayette and Iowa counties called the Southwest Wisconsin Groundwater and Geology (SWIGG) study. The counties that make up the DAWS are Vernon, Crawford and Richland, which are trying to establish a baseline for water quality levels.

The mission statement for the DAWS study is: ***Clean safe drinking water for everyone.***

Due to the coronavirus pandemic (COVID-19), the study has been postponed. The initial testing dates and the sample testing date has been rescheduled to the fall of 2020 with a second round of well testing planned for the spring of 2021.

How the Tests Are Completed

The study will consist of 200 well tests in the three counties: Vernon County will test 100 samples; Richland and Crawford counties will each test 50 samples. Each county has established well selection criteria.

- Richland and Crawford counties will use a randomized selection process and send a letter to well owners. They will cover the entire cost of the water testing.
- Vernon County will use a first come, first serve approach for sampling. The first 100 people who bring in a water sample will have it tested. The county will pay 50 percent of testing costs. All tests will be conducted by the UW-Stevens Point Water and Environmental Analysis Lab.

  Reporting

  A landowner will receive his or her test results and well testing results will be made public but without any names or locations associated with the results. Maps will be created with the well testing locations, but these will be general and not include a specific address. After concluding the first set of tests, presentations about testing results will occur in the three counties.

Considerations

At this time, there is no second phase of testing planned for the wells. There is no indication that wells testing with more than allowable health standards will be retested to try and identify the source(s) of the potential contamination.

The intention of the water testing study was to establish a baseline of water quality levels for the three counties; however, during the heightened awareness of water quality, without further testing to identify specific contaminates, it is possible that there will be manipulation of the results.

Southwest Wisconsin Groundwater and Geology Study

Purpose

Southwest Wisconsin has fractured bedrock that can allow contaminants from the surface to easily get into groundwater and contaminate drinking water. These contaminants can cause illnesses in people and animals that consume contaminated water.

Wells sampled in Grant, Iowa and Lafayette counties tested positive for coliform bacteria (Figure 1), an indicator of potential contamination, at a higher rate than other counties in Wisconsin.

In Grant and Lafayette counties there is not a well test baseline The goal of the SWIGG study is to determine the quality of the water in a sample of wells. If contamination exists, the study will provide counties and the state with detailed information about how to protect public health and help to insure that every resident has water that is safe to drink.

Who Is Conducting the Study

The county land conservation departments from Grant, Iowa and Lafayette counties are funding the study and will collaborate with UW-Extension and researchers from the Wisconsin Geological and Natural History Survey, the U.S. Geological Survey and the U.S. Department of Agriculture.

How is the Study Completed?

The first phase of the study includes a broad, multi-phased sampling of wells in Grant, Iowa and Lafayette counties for nitrates and bacteria to assess whether well water contamination exists and how widespread it is.

Next, researchers will look at the geology around sampled wells and how wells are constructed to determine what might be influencing how contaminants enter well water. For wells that are contaminated, researchers will take additional samples to determine the source of that contamination.

Additional Resources

SWIGG Study Fact Sheet
https://drive.google.com/file/d/1pALRdzbhsjaP84ufejc-bef_fgK5Pybq/view

Update on SWIGG – Aug. 1, 2019
https://drive.google.com/file/d/1swdAJqDNctXNnBEy0nSJVR0ToLc_L_AZ/view

SWIGG Study Background
https://iowa.extension.wisc.edu/natural-resources/swigg/

Discussion Questions

Should there be statewide well testing or should these efforts remain regional?

Is there a well sampling standard that should be followed or multi-phase testing criteria established for future well testing studies?

Should well testing be a state regulation? If so, how often? If not, how should well testing data be gathered?

When well testing samples are analyzed, is there a single entity where the well data is compiled and housed?

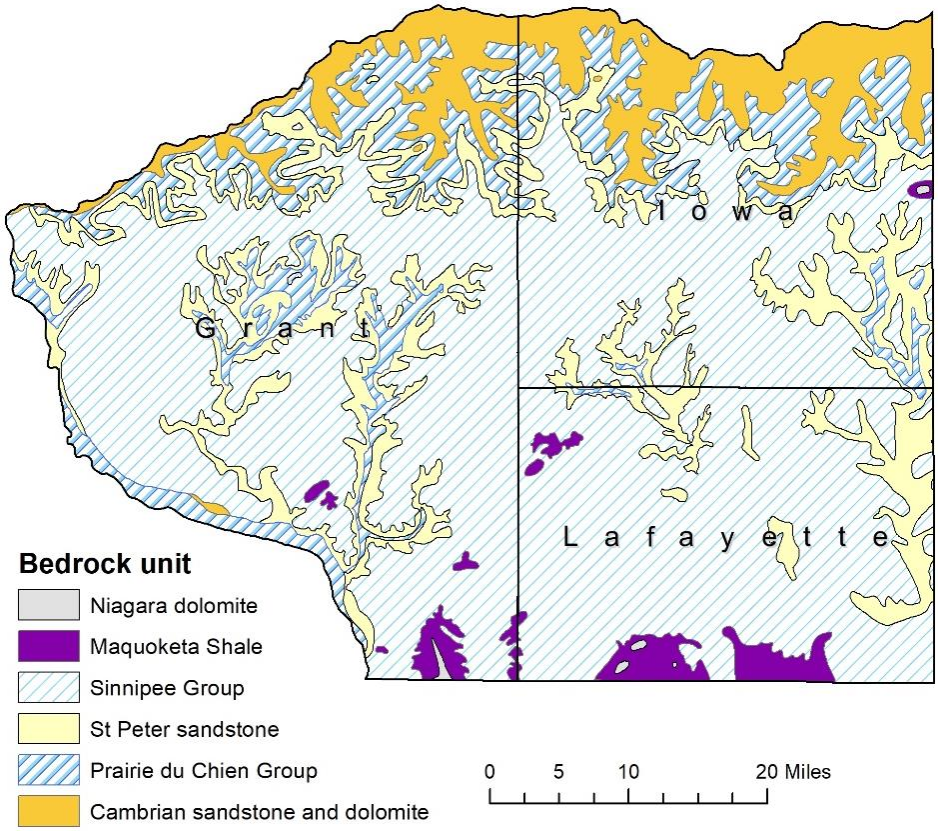

Figure 1. Generalized bedrock geology in southwest Wisconsin.