

## Presentation to the Green County Livestock Facility Study Group

October 12, 2017

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### **Introduction**

Green County, Wisconsin, has some of the most prolific groundwater resources in Wisconsin. Permeable geologic formations that provide and store groundwater are called “aquifers”. In Green County, the limestone and sandstone aquifers are thousands of feet thick. This can provide exceptional resilience to drought for public water supply, industrial and livestock use, and irrigated agriculture. The groundwater aquifer in Green County can be thought of as a large, subsurface reservoir naturally full of water.

The County’s groundwater resources can be the basis for a strong local economy. With sufficient planning for the location and depths of wells, the groundwater supply can support high water-use industries, such as food and beverage production and processing, irrigated agriculture, and livestock operations.

However, Green County hosts some of the most vulnerable groundwater resources in Wisconsin. In areas where bedrock formations are close to the land surface, overlain by just a few feet of soil, contaminants applied at the land surface readily pollute groundwater. This isn’t conjecture— based on data provided UW Stevens Point and summarized in Appendix 1, 70% of 2,662 well water samples collected in the county exceed naturally occurring nitrate concentrations (exceed 2 parts per million, ppm). Sixteen percent of the samples exceed the federal and state health-based nitrate standard, 10 ppm. Groundwater with high nitrate is often associated with other contaminants, such as bacteria or breakdown products of herbicides. In addition to the health risk posed to those who drink this water, poor groundwater quality has implications for County property values; a safe drinking water supply is part of the value of a home.