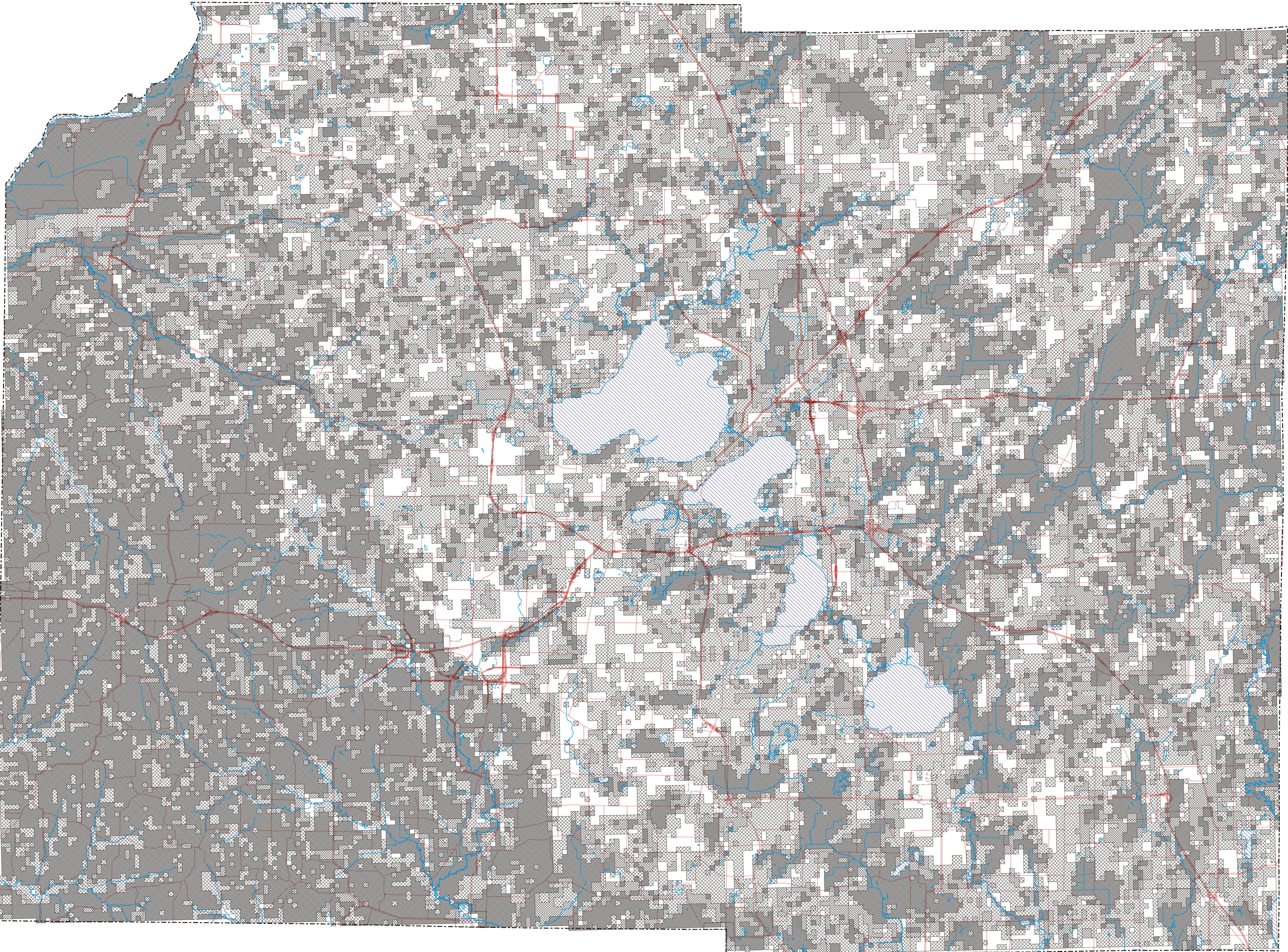
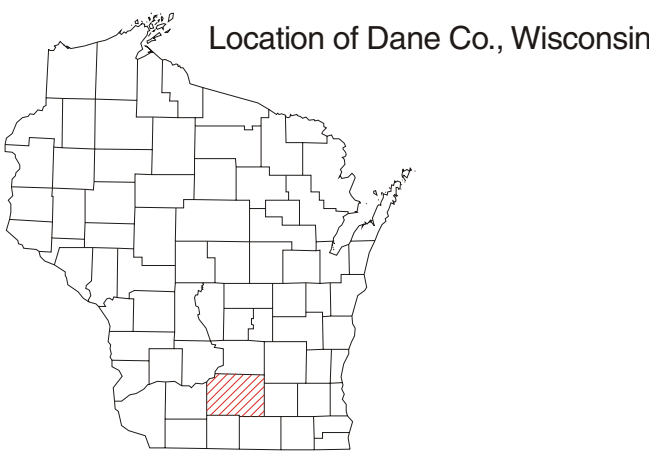


# Plate 2: Aquifer Contamination Susceptibility Map of Dane County, Wisconsin



## EXPLANATION

Susceptibility of  
Shallow Aquifers  
to Contamination

- Extreme
- High
- Moderate
- Low

Grid Size 250m x 250m

Water

Hydrography

Roads

### Explanation

This aquifer contamination susceptibility map for Dane County depicts the susceptibility of the shallow aquifers in the county to contamination from surface or nearsurface sources. Susceptibility of the groundwater to contamination refers to the ease with which contaminants can move from the land surface to the water table, and depends on the thickness and type of soil materials, the thickness and type of subsurface materials, and the position of an area within a groundwater flow system.

This map shows contamination susceptibility based on three factors determined to be important in limiting the downward migration of contaminants. The SCAM3 method developed by Bridson and others (1994) was used to evaluate the soils' ability to attenuate contaminants, which is the first factor. The second factor, called the hydrogeologic setting, combines attributes of local topography, geology, and hydrogeology, such as depth to water and bedrock type. The groundwater flow system, the third factor, describes the distribution of groundwater recharge and discharge areas. The three factors were represented as data layers in a Geographic Information System (GIS) and combined to create the final susceptibility map. Fritz (1996) discusses the map construction methodology in detail.

The map is based on gridded cells, with each cell representing about 15 acres on the ground. Data were generalized over each cell. Therefore this map is not intended for site specific use. The map is intended to demonstrate how different soil properties, geologic and hydrogeologic settings, and the groundwater flow system work together to determine overall aquifer susceptibility to contamination.

### References

Bridson, M.S., M.F. Bohn, and F.W. Madison. 1994. Evaluation of groundwater susceptibility assessment systems in Dane County, Wisconsin. Wisconsin Geological and Natural History Survey, Open-file report 9403, 52 p.

Fritz, A.M.K. 1996. Aquifer contamination susceptibility in Dane County, Wisconsin. Unpublished M.S. thesis, University of Wisconsin-Madison, Dept. of geology. 149 p.

Wisconsin Geological and Natural History Survey Open-File Report 1999-04  
Plate 2

Scale 1:100,000

