

**Wisconsin Geological and Natural History Survey
Preliminary Hydrogeologic Maps
of Iowa County, Wisconsin
Figure 1**

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This groundwater recharge map was generated using a soil-water budget model that estimates groundwater recharge across Iowa County. The computer model calculates deep infiltration based on land cover, the water-holding capacity of the soil, and the daily precipitation and temperature. The final result is an estimate of groundwater recharge in inches per year, as shown on the map. Model documentation is provided in: Westbroek, S.M., Kelson, V.A., Dripps, W.R., Hunt, R.J., and Bradbury, K.R., 2009, *SWB—A modified Thornthwaite-Mather Soil-Water-Balance code for estimating groundwater recharge: U.S. Geological Survey Techniques and Methods 6-A31*, 61 p. The model application to Iowa County is documented in the digital data set associated with this map.

Although this recharge map was generated with a model and was not verified with field measurements, the estimates are reasonable based on physical characteristics of the landscape, and they are in good agreement with other estimates of recharge in this area of Wisconsin.

This map is based on the precipitation record from 1992, which was a year in which total precipitation was about 35 inches, which is the average for Iowa County. Of that amount, about 11 inches reaches the water table. In a very wet year, when as much as 49 inches of precipitation may fall in the county, the estimated average recharge rate is about 15 inches per year. During very dry years, when precipitation can be as low as 25 inches, the model estimates an average recharge rate of about 6 inches per year. The relatively high rates of recharge over most of the county reflect several characteristics of the landscape. There is little development and the expansive forested and agricultural lands enhance recharge. Permeable soils present across most of the region also support recharge.

This map represents work performed by the Wisconsin Geological and Natural History Survey and is released to the open files in the interest of making the information readily available. This map has not been edited or reviewed for conformity with Wisconsin Geological and Natural History Survey standards and nomenclature.



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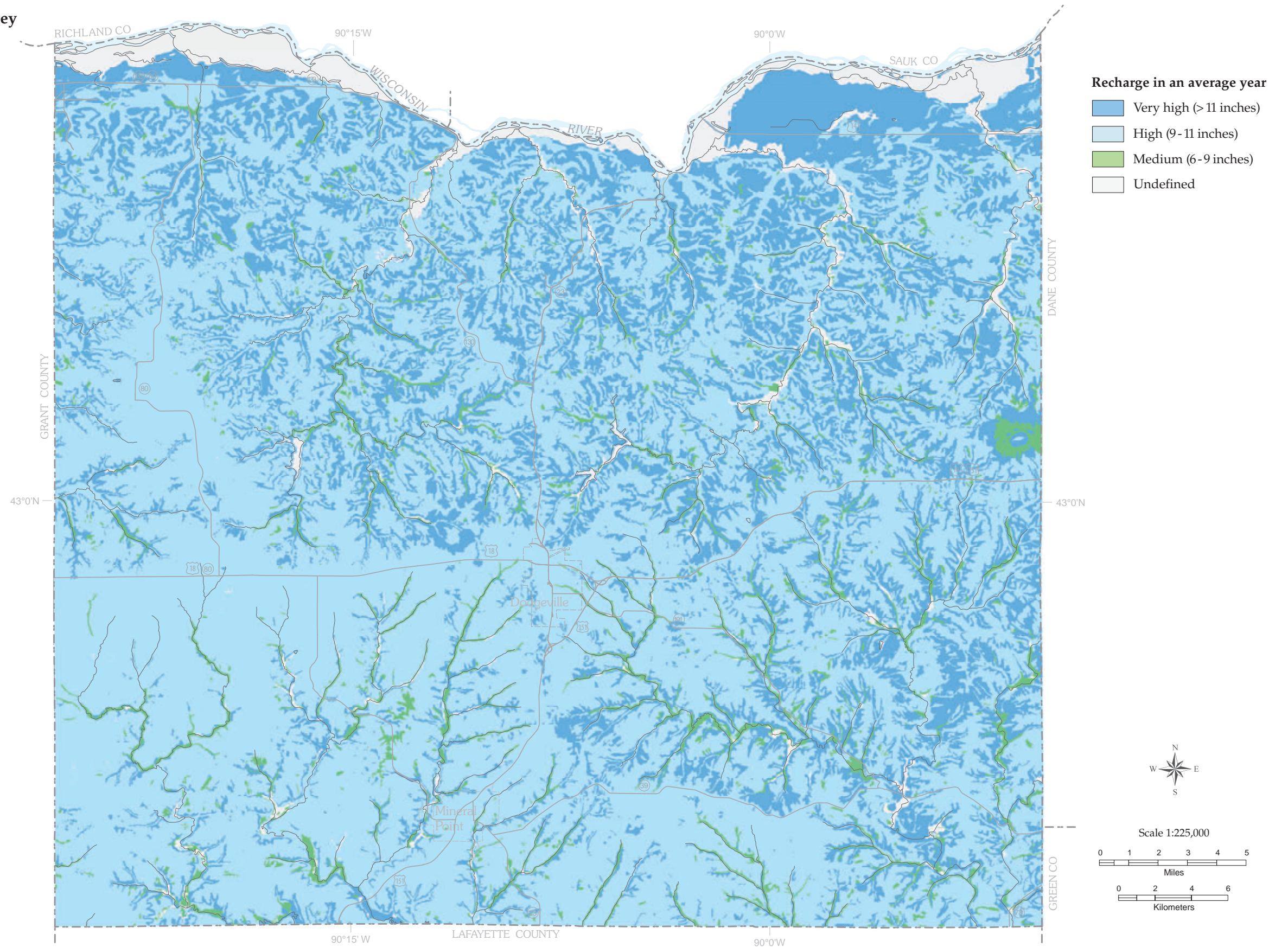


FIGURE 1. PRELIMINARY GROUNDWATER RECHARGE IN IOWA COUNTY, WISCONSIN.