

Doesn't
Wisconsin
already have
enough geologic
maps?

No, not even close...

Kenneth R. Bradbury

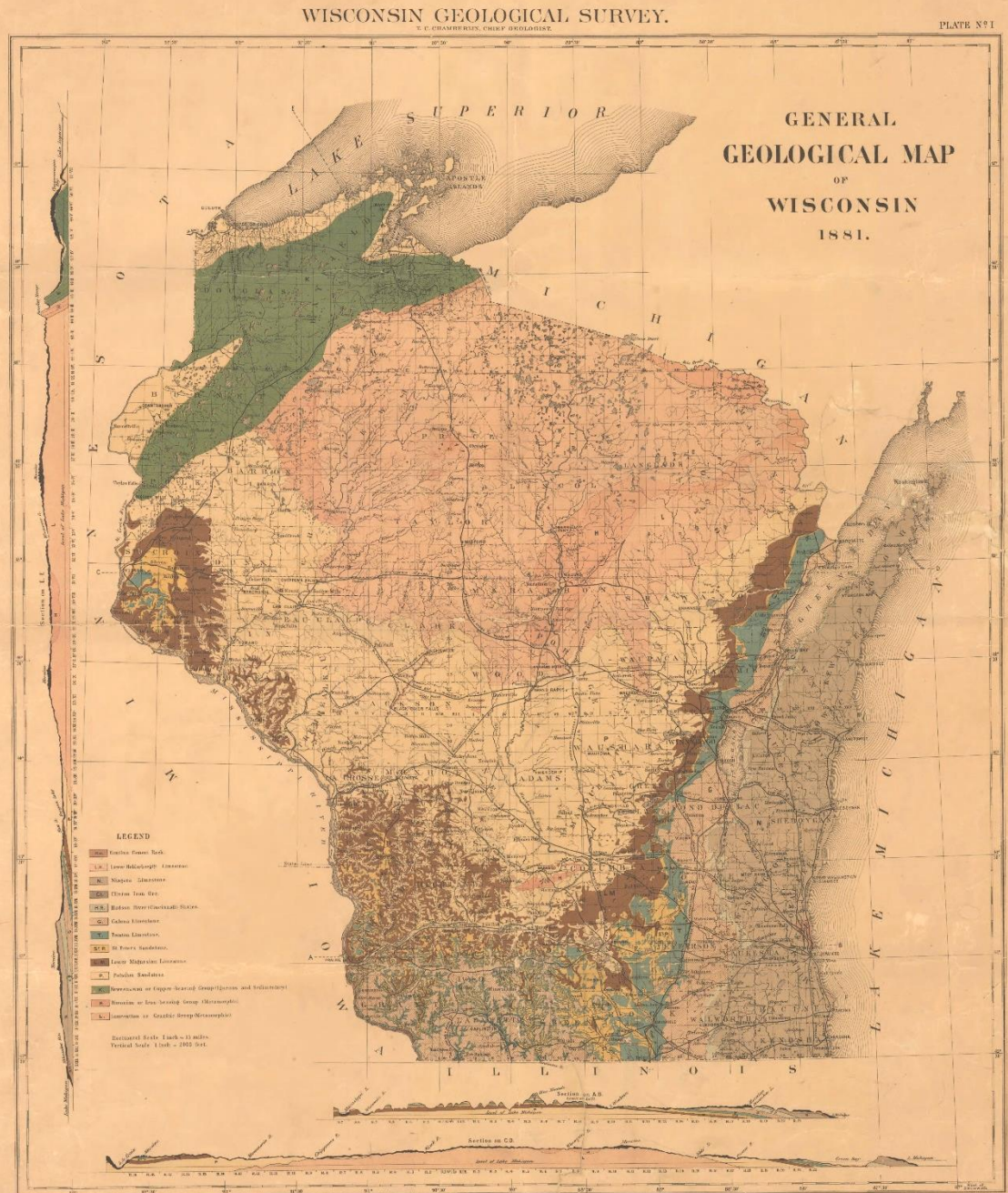
Director and State Geologist


Wisconsin Geological and Natural History Survey,
University of Wisconsin-Extension, Madison, WI

AWRA
Wisconsin
2018

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Wisconsin Geological and Natural History Survey



A detailed geologic map of the Baraboo area in Wisconsin. The map shows various geological units color-coded and labeled with codes such as Cw, ob, sp, Oo, Cp, Pb, wc, and wt. It includes topographic features like hills and valleys, water bodies such as Seeley Lake and Dennis Lake, and infrastructure like roads and the University of Wisconsin-Baraboo. The map is overlaid with a grid.

Geologic maps are:

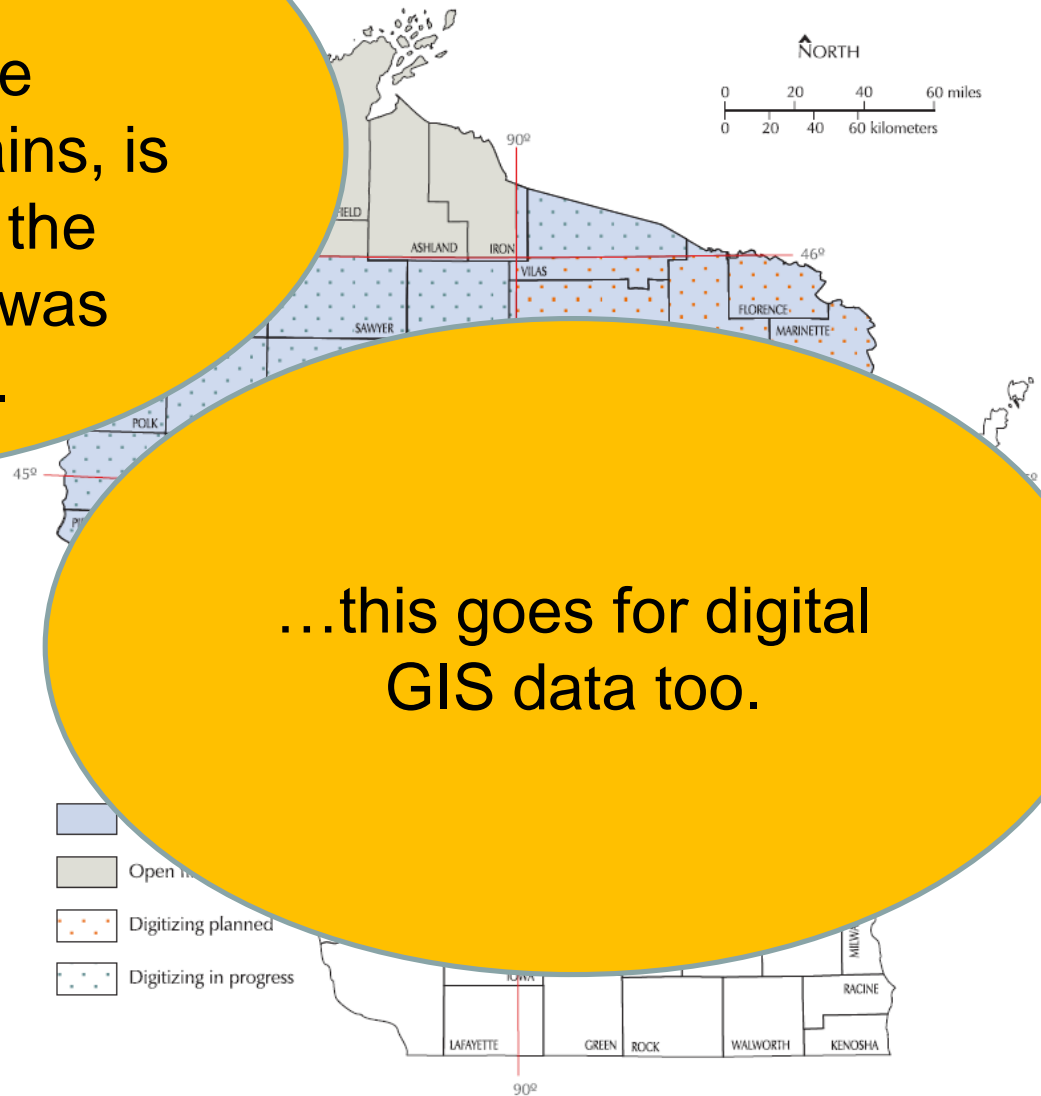
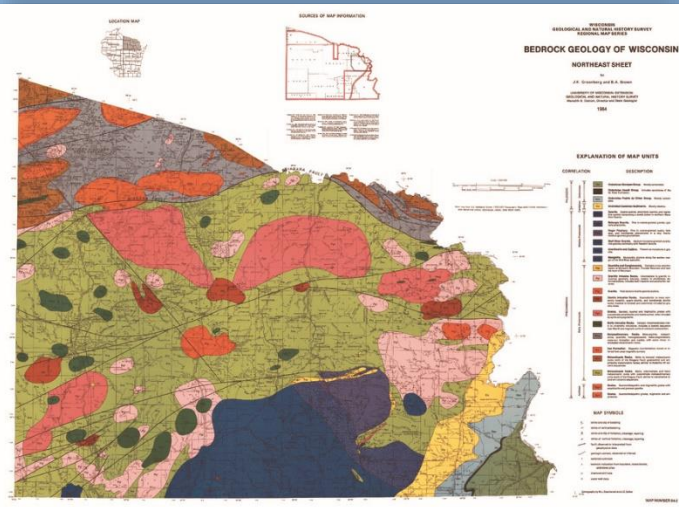
- The basic building blocks of groundwater and surface water studies
- Essential for appropriate design and building of infrastructure (roads, foundations, pipelines, etc.)
- Essential for understanding the locations and occurrence of mineral resources
- The foundation of land-use planning
- And much more...

Question

The scale issue...

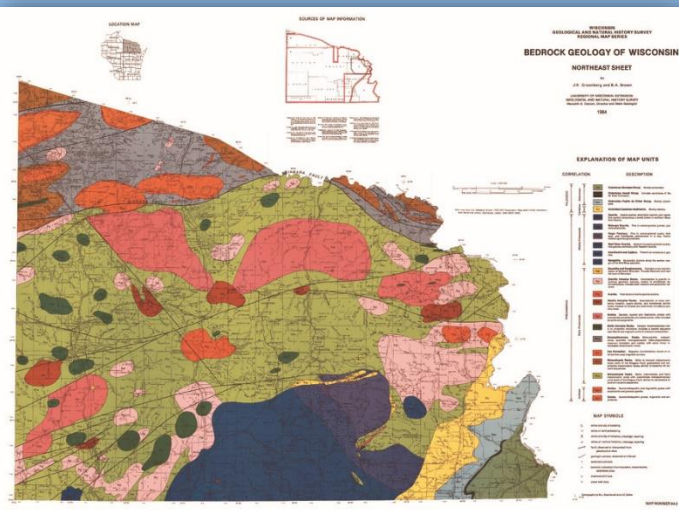
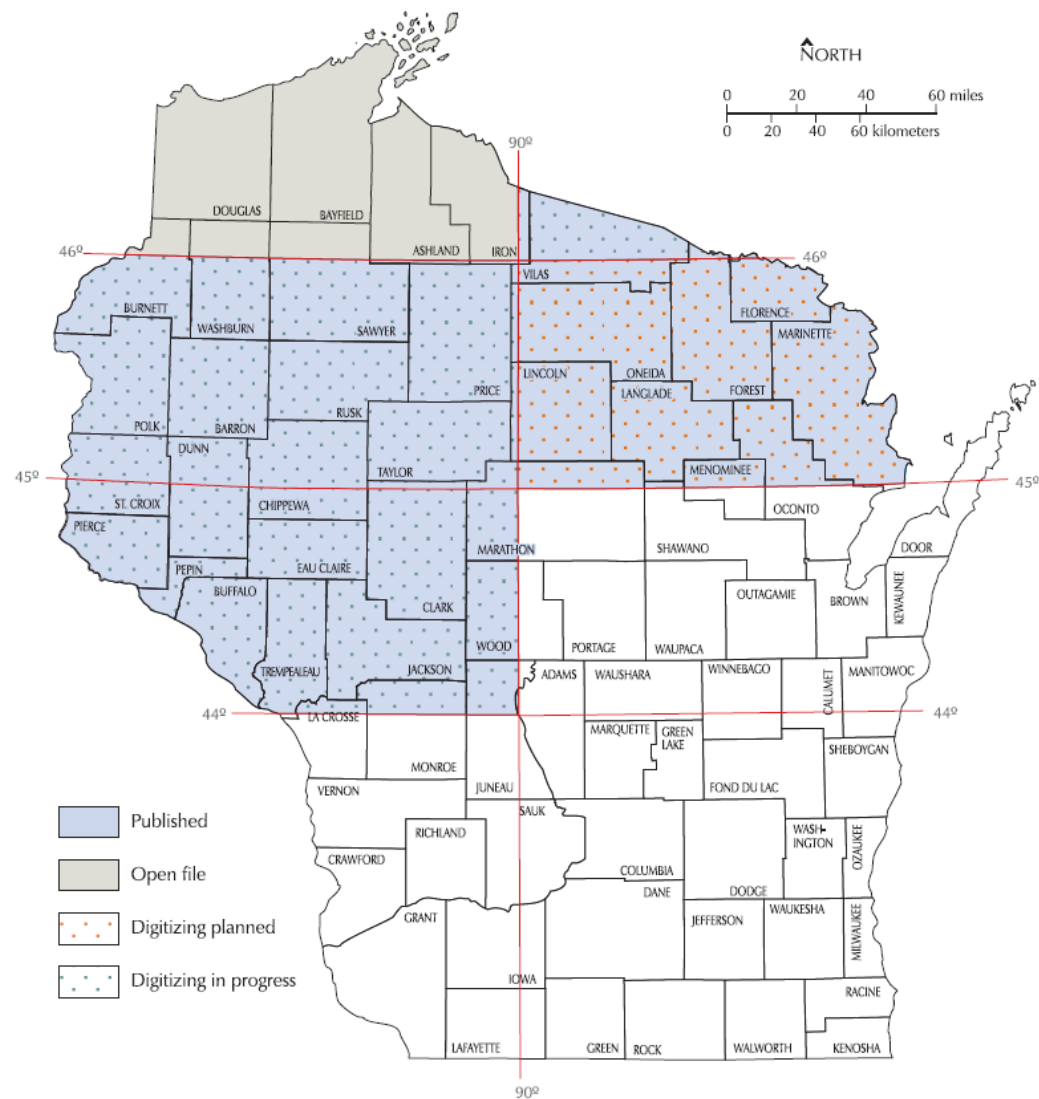
A map, and the information it contains, is only accurate to the scale at which it was constructed...

...this goes for digital GIS data too.



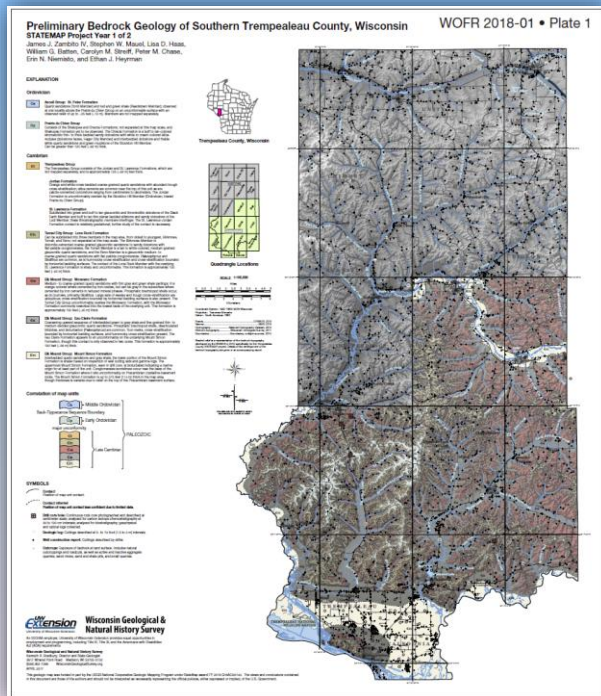
Quarter-million sheets

- Regional overview
- Limited detail
- Generalized
- Cover about half of Wisconsin (bedrock)



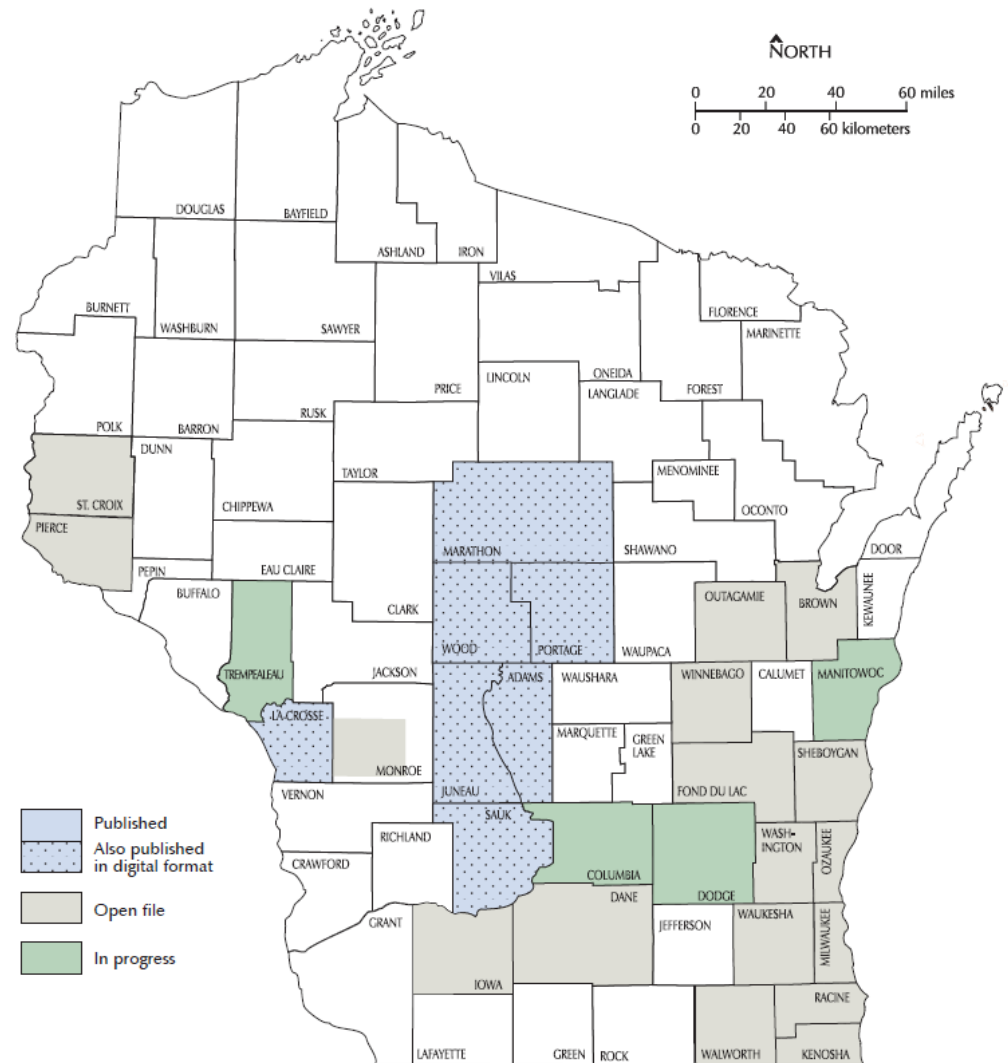
1:100,000 scale (county-scale)

- County-scale
- Useful for county and local planning
- Generalized
- 44 of 72 counties *lack* maps



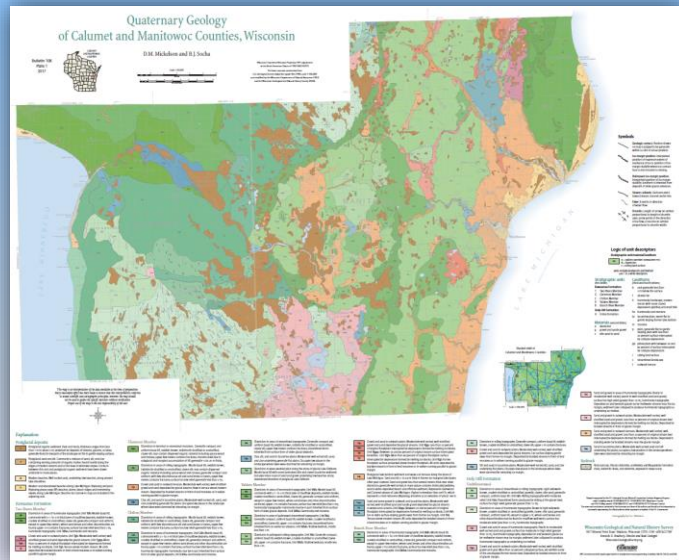
Status of Bedrock Geologic Mapping in Wisconsin at 1:100,000 scale

Wisconsin Geological and Natural History Survey



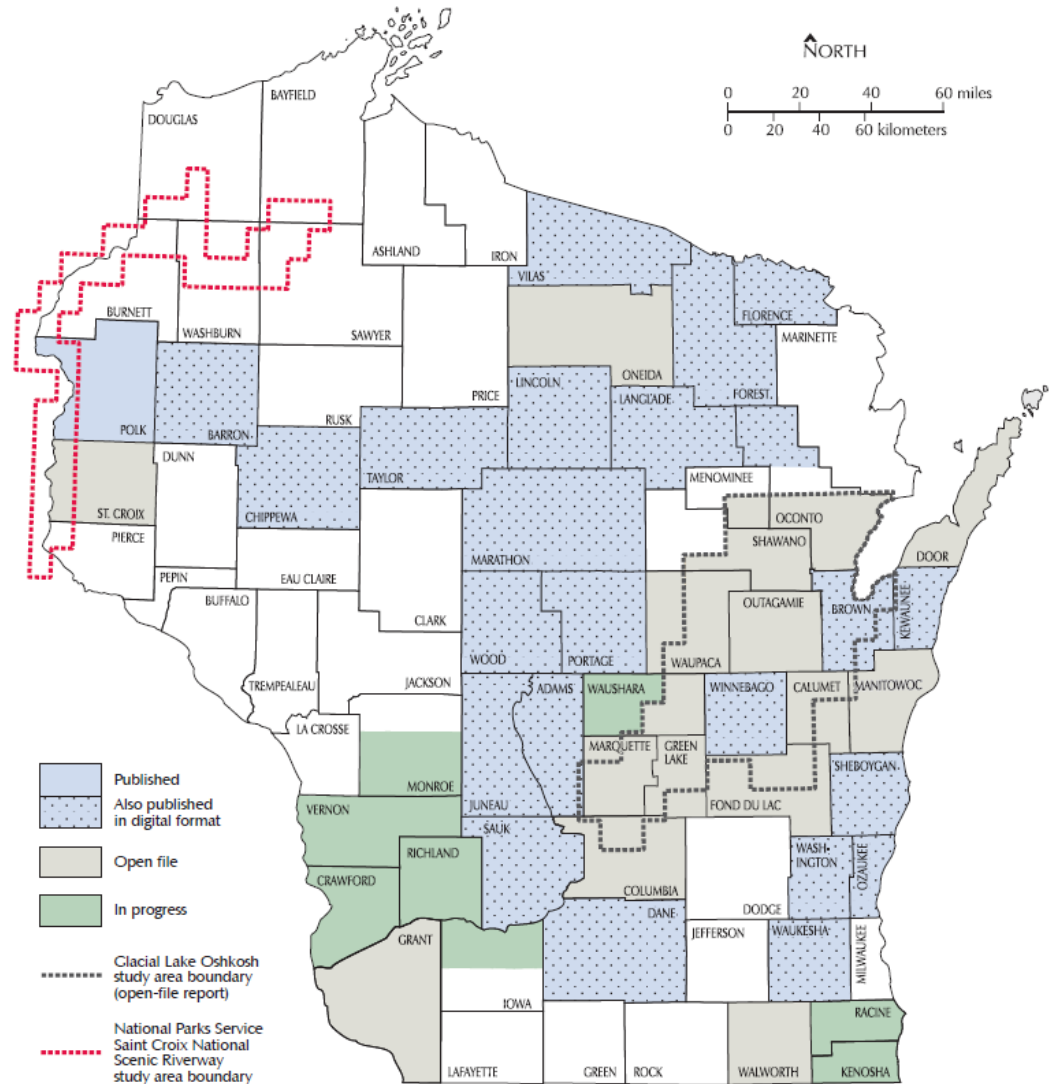
Pleistocene 1:100,000 scale (county- scale)

- County-scale
- Useful for county and local planning
- Generalized
- 30 of 72 counties *lack* maps



Status of Pleistocene Geologic Mapping in Wisconsin at 1:100,000 scale

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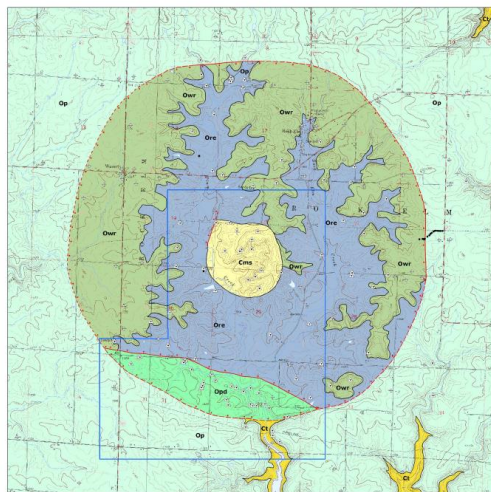


Bedrock

1:24,000 scale (quad-scale)

- 7.5' quad scale
- Most useful for detailed studies
- Highest detail
- Almost none available for Wisconsin

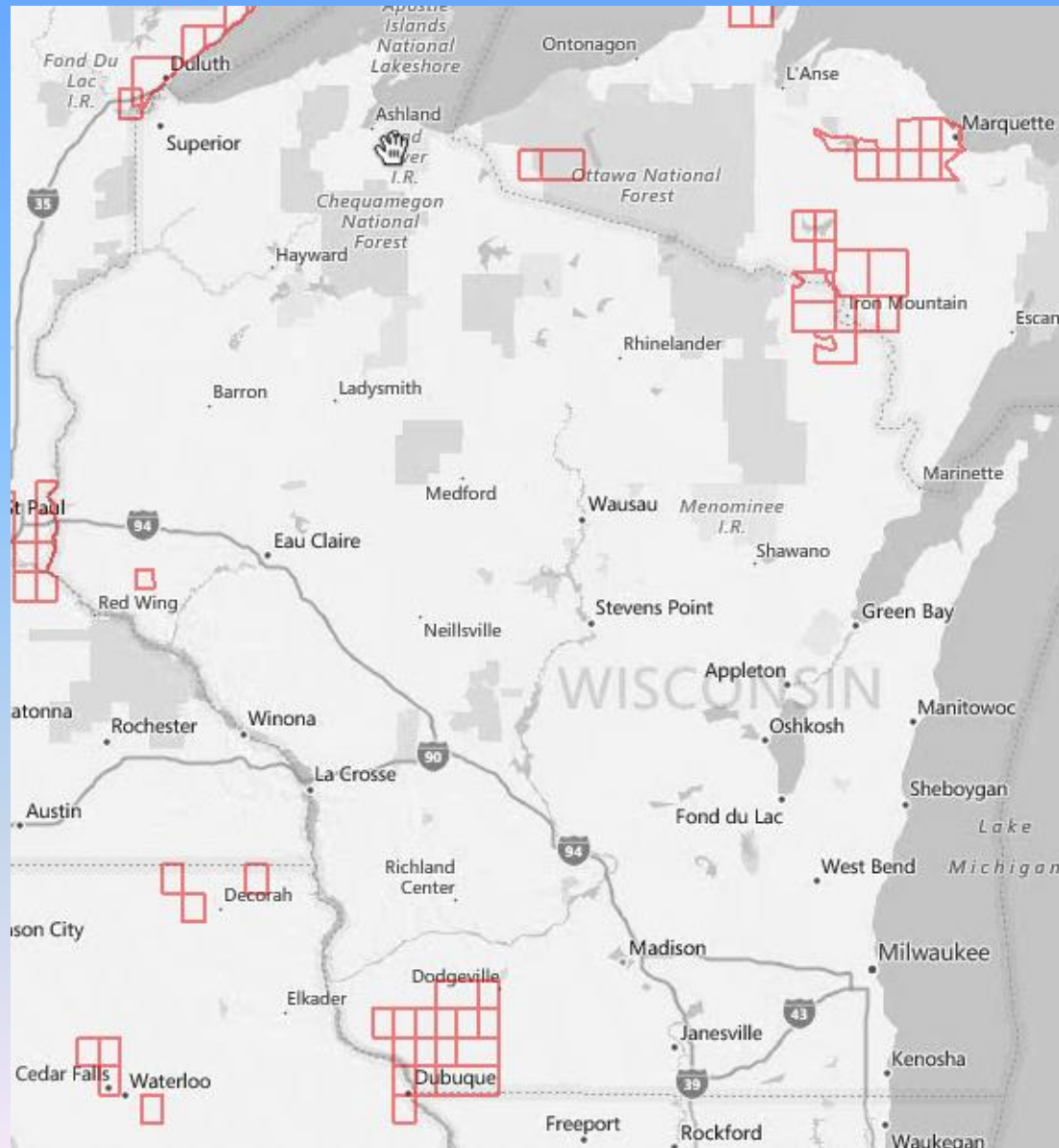
Geology of the Rock Elm Complex
Pierce County, Wisconsin
William S. Cordua and Thomas J. Evans

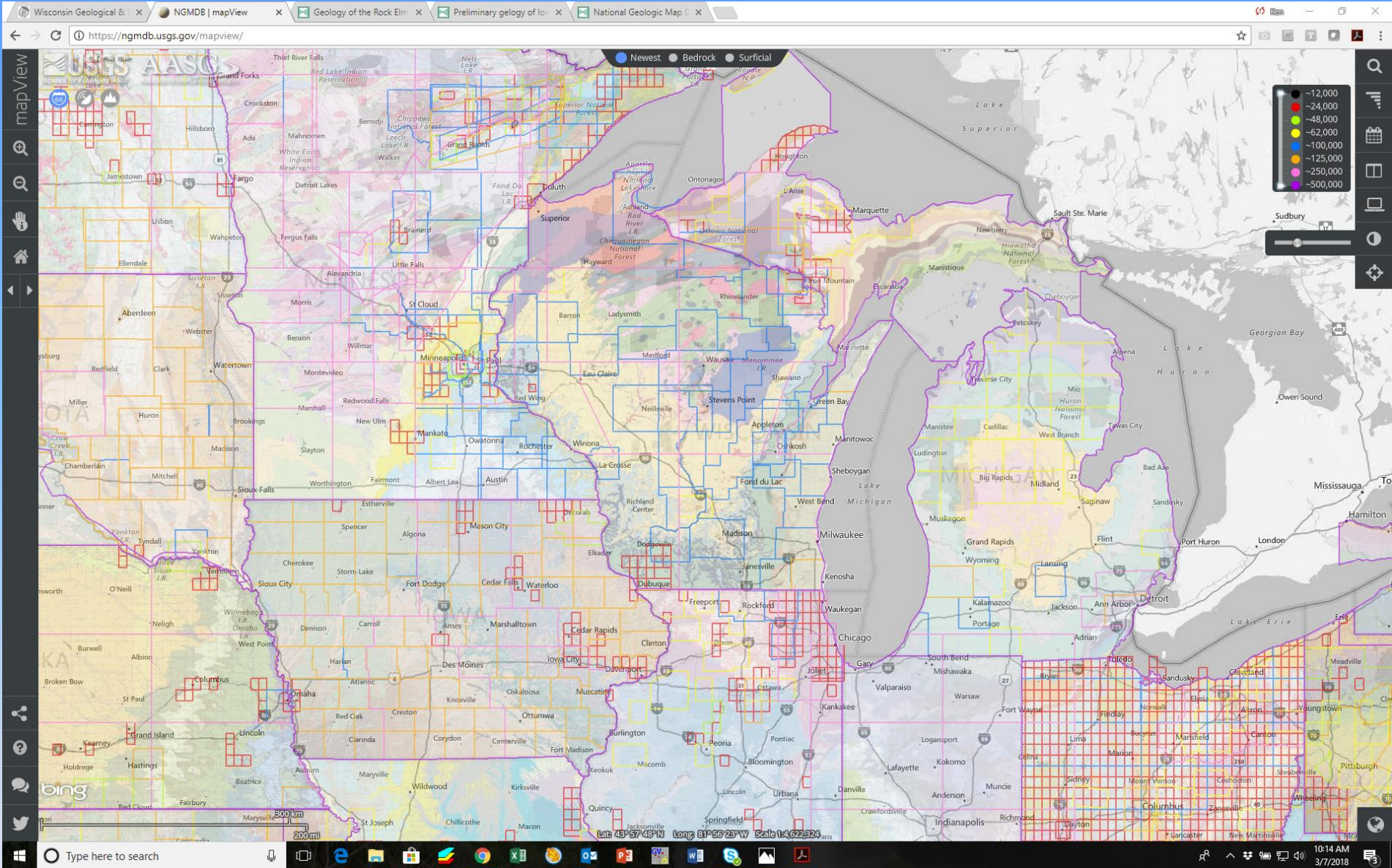


Extension
Wisconsin Geological and Natural History Survey
Open File Report 2017-02
This map was prepared by the Wisconsin Geological and Natural History Survey, University of Wisconsin-Madison, in cooperation with the Wisconsin Department of Natural Resources. The map is available for use by anyone for non-commercial purposes. The map is available for use by anyone for non-commercial purposes. The map is available for use by anyone for non-commercial purposes.



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The national map: <https://ngmdb.usgs.gov/mapview/>

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Wisconsin Geological and Natural History Survey

Geology is the fundamental basis of all water resources projects, yet support for new geologic mapping has declined in Wisconsin.

- The WGNHS is the only state agency involved in new geologic mapping;
- Our state budget for geologic mapping is on the order of \$200,000 per year (often matched by Federal funds);
- For comparison, Minnesota invested over \$2 million in geologic mapping in 2016 (10X as much)

How can you help us?

-
- A geologic map of Wisconsin serves as the background for the slide. The map displays various geological units color-coded and labeled with abbreviations such as 'po' (purple), 'gk' (green), 'ps' (pink), 'p' (orange), 'su' (blue), 'lo' (light orange), 'w' (yellow), 'gw' (dark green), and 'low' (brown). Major cities like Milwaukee and Madison are visible, along with state boundaries and neighboring states like Illinois and Michigan.
- Advocate for geologic mapping.
 - Help us guide our programs
 - Where in Wisconsin should we be mapping?
 - Where would you like to see new maps made?
 - What map scales are most useful to you?

Visit the WGNHS booth at the poster session, and put a post-it on the state map to indicate where, and why, you'd like to have new geologic maps!

