Minnesota Department of Natural Resources (DNR)
Groundwater Atlas Program
mndnr.gov/groundwatermapping

Hydrogeologic Cross Sections

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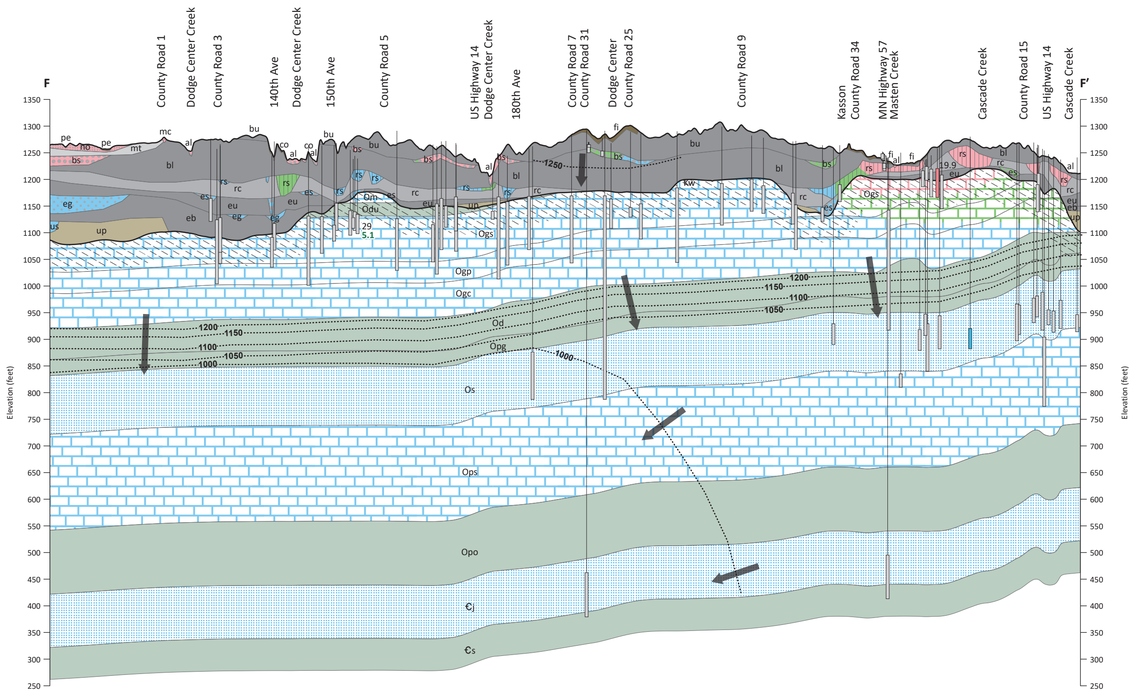
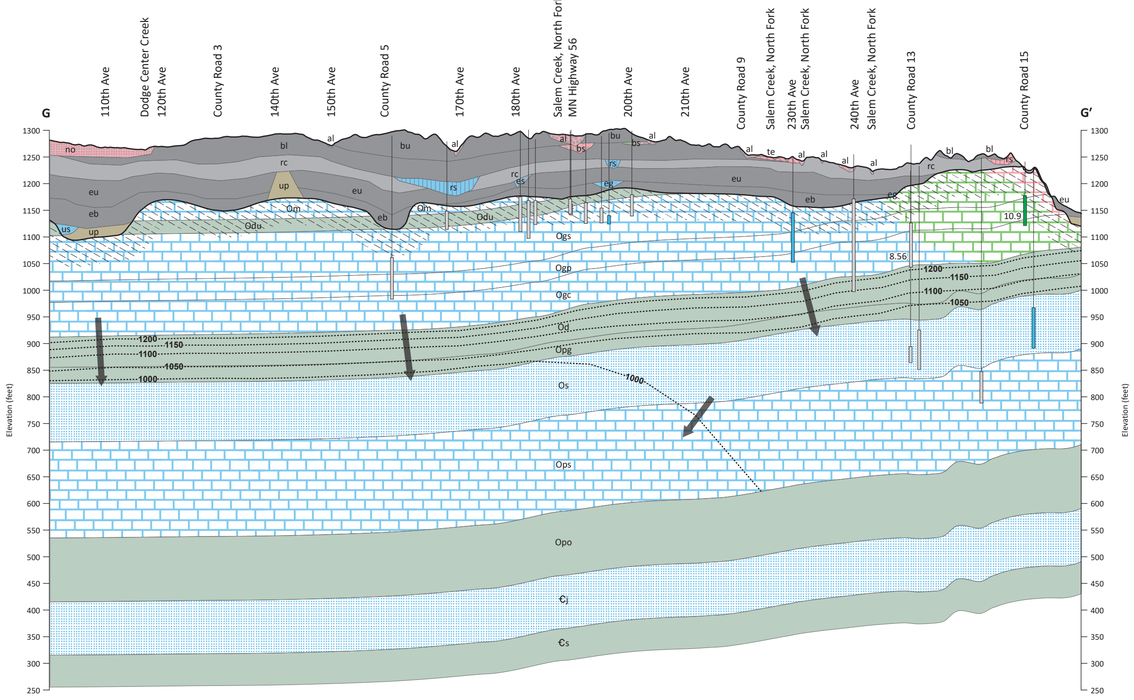
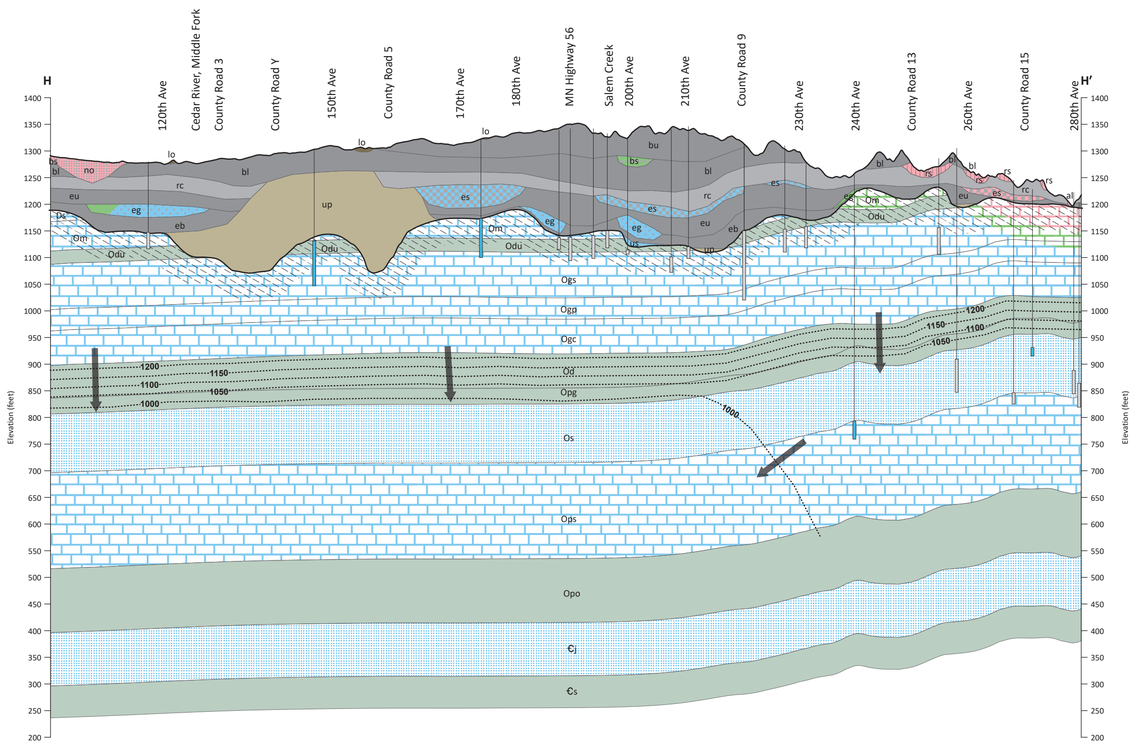
2024

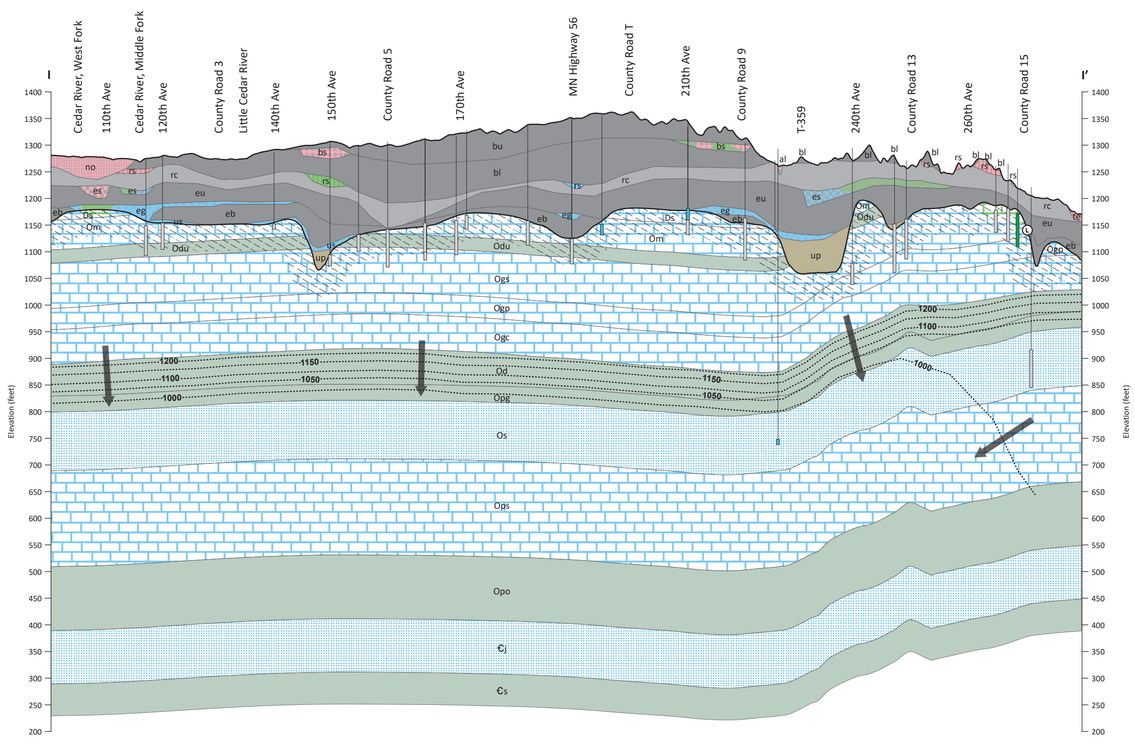
Groundwater Atlas of Dodge County
Hydrogeologic Cross Sections, Plate 9
F–F′ through J–J′
County Atlas Series C-50, Part B

To accompany atlas Report and Plates 7–8.









Cross Section Explanation

Aquifers and aquitards

Quaternary unconsolidated
Interpreted tritium age is indicated by background color.
See Figure 2 in the report for geologic unit correlation.

- fi
- al
- pe
- co
- te
- lo
- no
- mc
- mt
- bu
- bs
- bl
- rs
- rc
- es
- eu
- eg
- eb
- us
- up

Bedrock
Interpreted tritium age is indicated by pattern color.
See Figure 4 in the report for geologic unit correlation.

- Kw Windrow
- Dlp Little Cedar/Pinicon Ridge
- Ds Spillville
- Om Maquoketa Formation*
- Odu Dubuque Formation* — Galena Group
- Ogs Stewartville — Galena Group
- Ogp Prosser — Galena Group
- Ogc Cummingsville — Galena Group
- Od Decorah Shale* — Galena Group
- Opg Platteville and Glenwood formations*
- Os St. Peter
- Ops Shakopee — Prairie du Chien Group
- Opo Oneota Dolomite* — Prairie du Chien Group
- Cj Jordan
- Cs St. Lawrence Formation*

*aquitard

Quaternary aquitards

Grouped by texture ranging from highest to lowest sand content indicating relative hydraulic conductivity.

Geologic unit code	Percent sand
mt	>50% and ≤60%
rc	>40% and ≤50%
bl, bu, eb, eu	>30% and ≤40%

Tritium age

Darker color in small vertical rectangle (well screen symbol) indicates tritium age of water sampled in well. Lighter color indicates interpreted age of water in aquifer.

- Modern: water entered the ground after 1953.
- Mixed: water is a mixture of modern and premodern waters.
- Mostly premodern*: water entered the ground before 1953 but may contain a small amount of modern water.
- Well not sampled for tritium.

*These samples are referred to as "premodern" in the report. Both "mostly premodern" and "premodern" are shown on plates and figures for consistency with the dataset.

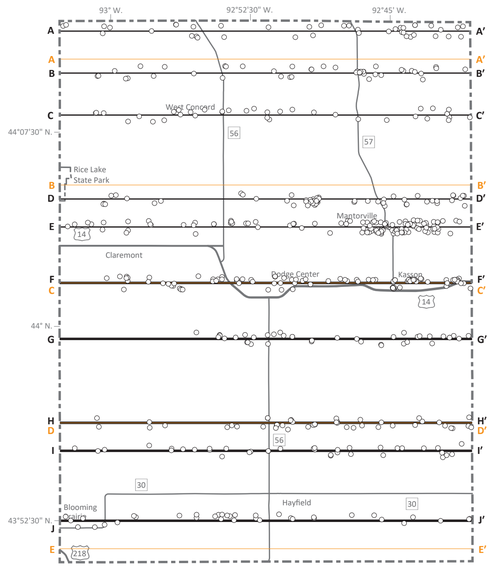
Symbols and labels

- 29 Chloride: if shown, concentration is ≥5 ppm. (*naturally elevated)
- 5.1 Nitrate: if shown, concentration is >1 ppm.
- 950 Carbon-14 (^{14}C): estimated groundwater residence time in years
- General groundwater flow direction
- ····1050···· Approximate equipotential contour; contour interval 50 feet
- Geologic contact
- Land or bedrock surface
- Enhanced-permeability zone

Groundwater conditions

- L Lateral flow: aquifer may have received lateral recharge from upgradient areas of higher pollution sensitivity.

SCALE 1:100 000
VERTICAL EXAGGERATION X 50
1 0 1 2 3 4 5 MILES
1 0 1 2 3 4 5 6 7 8 9 KILOMETERS



Symbols

- Well used to generate cross section
- A —— A′ Part B line of cross section shown on Plate 8
- F —— F′ Part B line of cross section shown on this plate
- A —— A′ Part A line of cross section

This map was compiled and generated in a geographic information system (GIS). GIS data files for individual counties can be downloaded from the DNR Groundwater Atlas Program's County Geologic Atlas Series page.

This map was prepared from publicly available information. Every reasonable effort has been made to ensure the accuracy of the data on which this map interpretation is based. However, the DNR does not warrant the accuracy, completeness, or any implied uses of these data. Users may wish to verify critical information; sources include both the references in the report and information on file in the offices of the Minnesota Geological Survey and the DNR. Every effort has been made to ensure the interpretation shown conforms to sound geologic and cartographic principles. This map should not be used to establish legal title, boundaries, or locations of improvements.

Base modified from Minnesota Geological Survey, Geologic Atlas of Dodge County, 2019.

Universal Transverse Mercator projection, Zone 15N, North American Datum of 1983. North American Vertical Datum of 1988.

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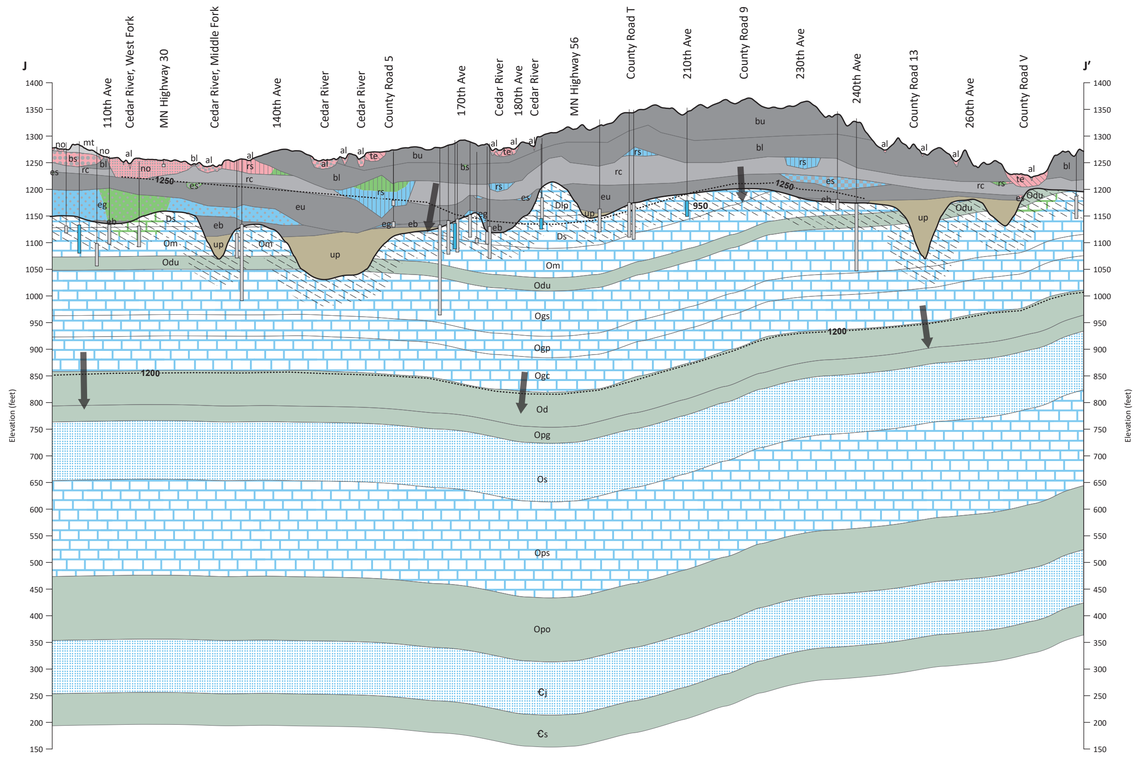

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