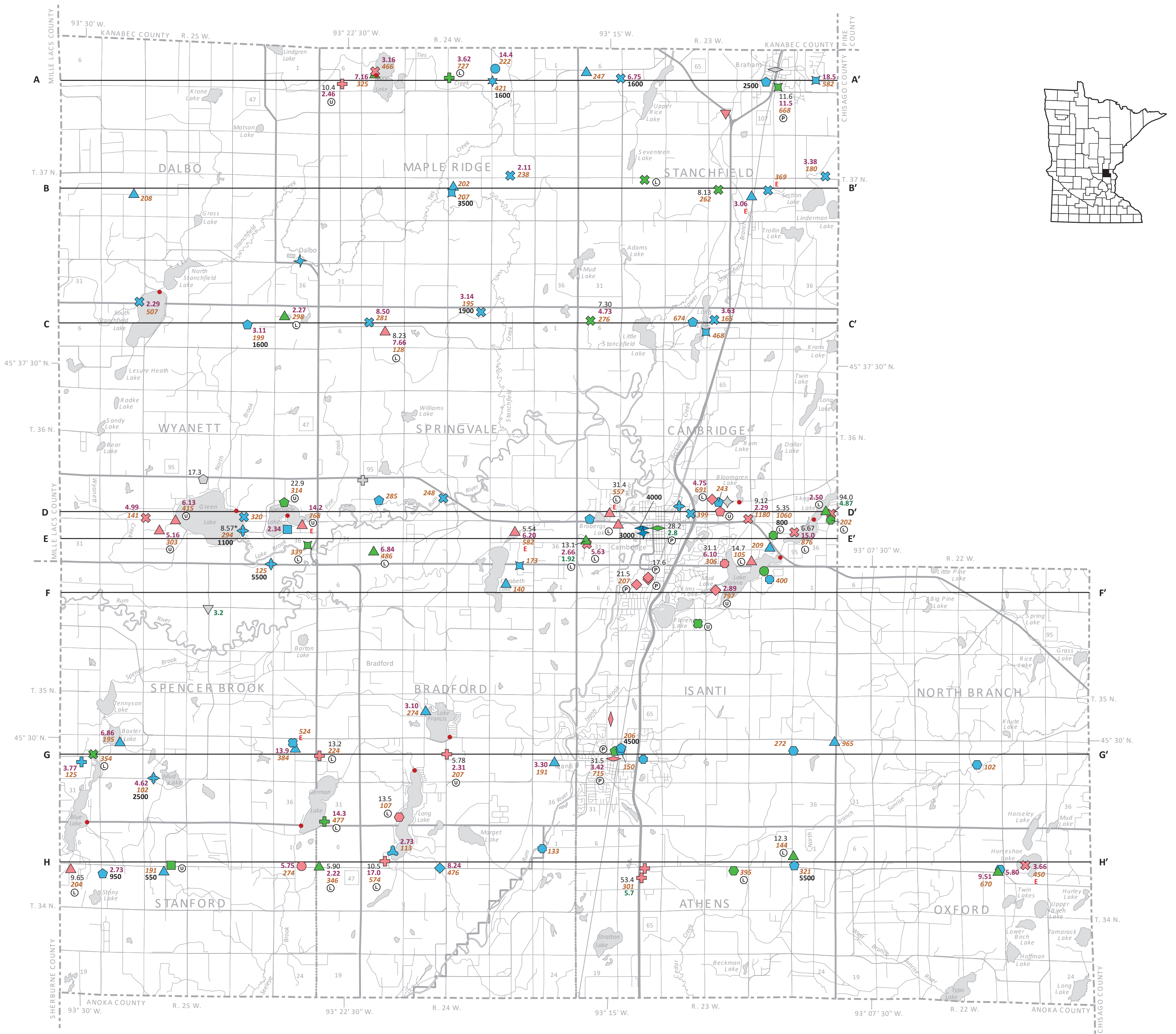


2025

To accompany atlas Report and Plate 8.



Map Explanation

Water sample and aquifer symbols

Symbol color indicates tritium age of water sample. See Figures 2 and 4 in the report for geologic unit correlation.

Unconsolidated aquifers

- ▼ ss
 - csa
 - ✕ csr
 - ▲ cse
 - ✚ rs
 - ▲ scs
 - fs1
 - mls
- Bedrock
- Tunnel City
 - Tunnel City–Wonewoc
 - ◆ Wonewoc
 - ◆ Wonewoc–Eau Claire
 - ◆ Wonewoc–Mt. Simon
 - ▲ Eau Claire–Mt. Simon
 - ◆ Mt. Simon
 - ◆ Mt. Simon–Hinckley
 - ◆ Mt. Simon–Fond du Lac
 - ★ Hinckley
 - ★ Hinckley–Fond du Lac

Tritium age

Symbol color indicates tritium age of water sample.

- Modern: water entered the ground since about 1953.
- Mixed: water is a mixture of modern and premodern.
- Mostly premodern*: tritium not detected and the premodern threshold is below the detection limit.
- Premodern: water entered the ground before 1953.
- Not sampled for tritium.

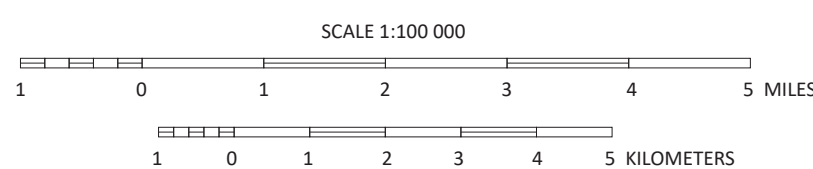
*These samples are referred to as “premodern” in the report. Both “mostly premodern” and “premodern” are shown on plates and figures for consistency with the dataset.

Symbols and labels

- 6.67 Chloride: if shown, concentration is ≥ 5 ppm. (* naturally elevated)
- 4.75 Arsenic: if shown, concentration is ≥ 2 ppb.
- 691 Manganese: if shown, concentration is ≥ 100 ppb.
- 4.87 Nitrate: if shown, concentration is ≥ 1 ppm.
- 800 Carbon-14 (^{14}C): estimated groundwater residence time in years.
- E Groundwater sample with evaporative signature
- Surface water
- A—A' Line of cross section (Part B)
- Body of water

Groundwater conditions

- Lateral flow: aquifer may have received lateral recharge from upgradient areas of higher pollution sensitivity.
- Pumping: high-volume pumping may have enhanced recharge rates and changed local groundwater flow.
- Unknown: neither the pollution sensitivity model nor groundwater conditions explained the presence of modern or mixed tritium-age water.



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 (mndnr.gov/groundwatermapping).

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 Isanti County, 2017.

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



500 Lafayette Road
St. Paul, MN 55155-4025
888-646-6367 or 651-296-6157
mndnr.gov

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