How the Clean Water Fund Protects Groundwater from Degradation

The Clean Water, Land & Legacy Amendment to the State Constitution ratified by the voters in 2008 supports the Clean Water Fund with part of a dedicated sales tax.

Our groundwater serves as a drinking water source for 75 percent of Minnesotans and provides ecological benefits for our surface waters and aquatic life. The state's strategy aims to protect groundwater from degradation in Minnesota.

What we do with the Clean Water Fund

Monitoring wells in locations from relatively clean water in northern Minnesota to heavily urbanized or agricultural lands provide information on aquifer levels and water quality. Agencies look for contaminants like nitrates, pesticides, and PFAS. Geologic and groundwater atlases help assess quantity, location, and movement of groundwater. Groundwater plans show where and how we should protect aquifers from future pollution. Then the Clean Water Fund and other funding sources provide technical assistance and grants to help keep contaminants out of our groundwater and to maintain aquifers at appropriate levels.

An abandoned fuel storage tank is removed to protect the public water supply in Bovey, MN.

Photo credit: MN Department of Health

Our strategy

Identify what's wrong (or healthy) with our water.

Find the source of the problem, make a plan to fix it, and prioritize the most important problems first.

Fund projects and support the people who can fix the problem.

Monitor the project results to see if the fixes worked.

How do we measure success?

We can't see our groundwater, but we can look at trends that give us an idea of groundwater health.

- Our large monitoring well network determines if groundwater level trends are moving upward, downward, or staying the same.
- Increased inspection of subsurface sewage treatment systems (SSTS)—or septic systems—and targeted grants protect groundwater from harmful pathogens. Compliance with regulations is well above 80 percent annually, and we're shooting for 90 percent.
- While agencies, local partners, and farmers work to reduce nitrate concentrations around public water supply wells in about three dozen communities, the goal is to have no additional communities with elevated nitrate, and we're getting there.
- We're monitoring for PFAS contamination statewide so that Minnesotans can protect themselves from these "forever chemicals."

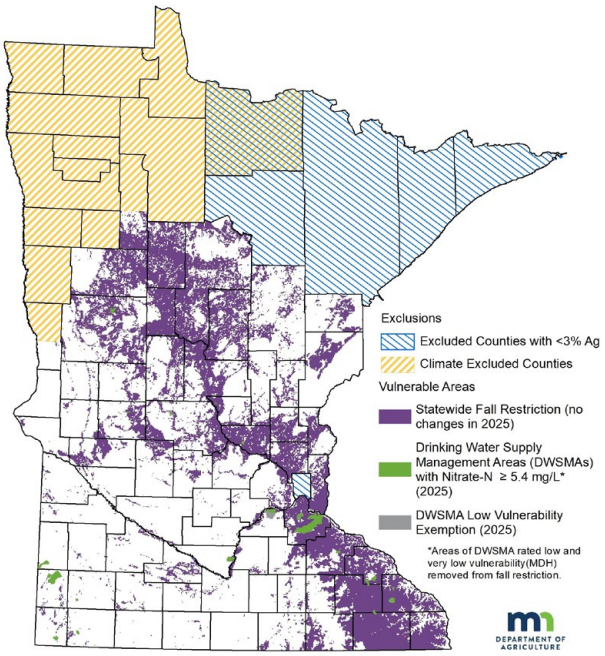
Keeping an eye on our aquifers

Thousands of public and private wells help us know the quantity and quality of our groundwater. The state uses the data to advise or regulate certain land uses based on the science.

For example, monitoring wells may show that an irrigator with a permit may need to suspend operations temporarily so that a nearby private well or public water supply well doesn't go dry during a drought.

Knowing where soils are vulnerable to nitrate contamination (as shown on the right) led the state to restrict fall agricultural fertilizer application. This reduces the risk to drinking water.

Fall fertilizer restrictions map 2025



A sampling of thousands of projects:

WATER QUALITY CERTIFICATION FOR FARMERS

Over 1,500 certified farmers have significantly reduced the potential for pollutants to enter our groundwater, lakes, and streams compared to conventional practices.

WATER EFFICIENT RESIDENTIAL IRRIGATION

Grants to municipalities in the seven-county metro area support more efficient residential irrigation. These and other water efficiency measures have reduced groundwater use by more than 150 million gallons annually.

GROUNDWATER MANAGEMENT AND PLANNING

The DNR is building a statewide groundwater monitoring network that tracks water level changes over time and how our aquifers are responding to intensive water use. The DNR uses this information to inform local planning efforts and state permitting decisions for new or increased water uses for communities, agriculture, and industry.

Published by the
Clean Water Council

March 2025

MINNESOTA CLEAN WATER COUNCIL

CLEAN WATER LAND & LEGACY AMENDMENT
YOUR Clean Water Fund AT WORK