



Minnesota
Pollution
Control
Agency

Enhancing Ambient Groundwater Quality Monitoring in Minnesota

For the Clean Water Land and Legacy Amendment

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For More Information

For additional information about the MPCA's ambient groundwater quality monitoring network, contact the MPCA's Ambient Groundwater Monitoring Coordinator in the Environmental Analysis and Outcomes Division at 651-296-6300 or 800-657-3864.

Ground water provides drinking water to about 75 percent of Minnesotans and contributes water to stream, rivers, lakes, and wetlands. The Minnesota Pollution Control Agency (MPCA) monitors the quality of our groundwater and protects it from contamination in cooperation with other state and local agencies.

What Is Ambient Monitoring?

Ambient monitoring is one important component of the MPCA's groundwater protection efforts. Data collected from ambient monitoring activities provide information about the general quality of Minnesota's groundwater and helps identify whether the quality is getting better, worse, or not changing. Ambient monitoring involves the sampling of groundwater across large geographic settings and provides a large-scale or "big picture" view of groundwater quality conditions across the state. Ambient monitoring is not conducted where there is known contamination.

How Is This Information Used?

Data collected from MPCA ground water investigations is valuable to drinking water protection efforts. This data informs the state's drinking water supply protection efforts, identifies threats to groundwater quality, and guides the development of best management practices to avoid future groundwater impacts. These data are available on-line through the MPCA's Environmental Data Access system.

MPCA's Ambient Groundwater Monitoring Network

The MPCA's ambient monitoring network focuses on determining the amount of non-agricultural chemicals in the aquifers that are most susceptible to pollution from human activities. The network focuses on the surficial

sand and gravel and Prairie du Chien-Jordan aquifers. Both of these are heavily used for drinking water. Assessments of agricultural chemicals are performed by the Minnesota Department of Agriculture.

A network of shallow wells tapping the water table is monitored by the MPCA as an early warning network in the surficial sand and gravel aquifers. Groundwater near the water table typically is not used as a source of potable water supplies and likely does not reflect the quality of water people are consuming, but any changes in groundwater quality will be detected first in these wells. The early warning network detects whether human activities may be affecting groundwater quality.

The MPCA is enhancing its early warning network to improve the assessment of groundwater quality conditions and trends across the state. The agency will be installing additional monitoring wells and focuses on typical urban land use settings. The newly-constructed wells will be sampled annually for non-agricultural chemicals.

Clean Water Land and Legacy Amendment

Enhancements to the MPCA's ambient groundwater quality monitoring network are funded through the Clean Water, Wildlife, Cultural Heritage and Natural Areas Amendment. On November 4, 2008, Minnesota voters approved this amendment which increased the sales and use tax rate by three-eighths of one percent on taxable sales through 2034. Part of these funds are used to protect, enhance, and restore the groundwater, with at least five percent of the funds targeted to protect drinking water source.