



NEWS

From Dakota County

BRANDT RICHARDSON
COUNTY ADMINISTRATOR

JANE VANDERPOEL
COMMUNICATIONS MANAGER

TELEPHONE (651) 438-4418
FAX (651) 438-4405

Contact: Jane Vanderpoel 651/438-4423
FOR IMMEDIATE RELEASE

DAKOTA COUNTY GOVERNMENT COMPLEX
DAKOTA COUNTY ADMINISTRATION OFFICE
1590 HWY 55, HASTINGS, MN 55033-2372
WORLD WIDE WEB SITE: www.co.dakota.mn.us

December 13, 2005

New water testing in Dakota County confirms earlier findings

Results of new water quality tests conducted by Dakota County confirm the presence of chemicals that are potentially harmful to humans in private drinking water wells.

Dakota County has conducted its Ambient Groundwater Quality Study since 1999, but the study was expanded in 2004 to include more wells and more technologically advanced laboratory tests. The 2004 results, which were for shallow, "sand and gravel" wells, raised concerns about wells with nitrate or agricultural pesticides that exceeded drinking water standards, wells that contained multiple pesticides, and whether similar issues would be found in deeper bedrock wells.

The results of the 2005 testing, presented to the Dakota County Commissioners today, confirmed and expanded upon the 2004 results. In 2005 (see pie chart, p. 3), 82% of the wells tested had detectable levels of nitrate, pesticides or their degradates; 62% of the wells contained multiple pesticides. Nitrate, pesticides, or both nitrate and pesticides exceeded drinking water standards in 21% of the wells. Generally, wells in the eastern half of the county are of more concern than others.

Based on these findings, Dakota County Commissioners learned today that information will be sent to 8,000 households that rely on private wells for their drinking water, providing guidelines to help them decide if they want to install a reverse osmosis filtering system, use an alternate source of drinking water, or continue to drink untreated well water.

These test results only apply to drinking water in private wells, not drinking water that is supplied by a city water source. There are about 8,000 households that rely on private wells in the County, approximately half in cities and half in rural townships. More than 90 percent of people who live in Dakota County get their drinking water from groundwater, whether they have city water or private wells.

Nitrate, the most common form of groundwater contamination in Minnesota, can cause a metabolic problem in infants called "blue baby syndrome" and often indicates that other contaminants such as pesticides may also be present. Long-term exposure to some pesticides has been linked to cancer or harmful effects on the nervous system or endocrine system.

Pesticides are most often used in farming to control weeds. Their large molecules break down into smaller molecules called breakdown products, which are generally less toxic than the parent chemical but

-more-

survive in the ecosystem longer. Dakota County's well water samples were tested for the presence of 15 pesticide parent compounds and 39 breakdown products; 8 parent compounds and 29 breakdown products were detected. Some of the chemicals detected have not been sold commercially for several years.

The pesticides detected at levels above their respective drinking water standards were alachlor and breakdown products of cyanazine. Cyanazine, sold as Bladex, has not been legal for use since 2002. Potential health risks associated with cyanazine are birth defects or developmental problems in infants. Alachlor, sold as Bullet, Freedom, Lariat, Lasso, Partner, Shroud, or other brands, has generally been replaced with a different herbicide, acetochlor. Long-term exposure to alachlor may cause cancer or damage to the liver, kidney, spleen, or lining of nose or eyelids.

Wells drilled in Dakota County typically tap into one of three underground water sources: the Prairie du Chien or Jordan bedrock aquifers, or into water found in sand and gravel below the ground surface. (See diagram on p. 3) Water is recharged in these sources by snowmelt and runoff from rain or irrigation. As surface water seeps into the soil, it carries along impurities such as agricultural chemicals and other pollution sources that are found on the surface. Isotope age-dating of Dakota County drinking water in these three sources has indicated that the water can be as old as fifty years or as recent as one year old. Therefore, drilling wells deeper may not produce pristine water.

At the meeting of the Dakota County Board of Commissioners' Physical Development Committee of the Whole today, Commissioners were provided with these results of the County's long-term Ambient Water Quality Study, which started in 1999 and tracks changes in water quality over time. Dakota County staff has consulted with other agencies on the study, including the United States Geological Survey (USGS), Minnesota Department of Agriculture (MDA), and Minnesota Department of Health (MDH).

"These test results are important," said Dakota County Commissioner Joseph Harris, who represents most of the rural parts of the County. "Anyone who worries about the quality of their drinking water supply should use whatever precautionary measures they feel will give them the best drinking water quality to protect their health and that of their family."

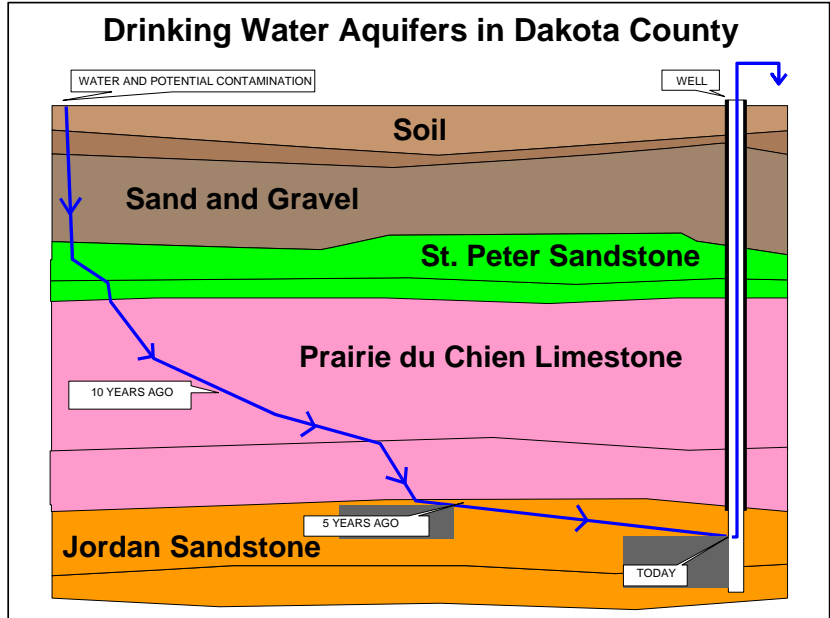
Commissioner Harris said Dakota County was the first in the state to test drinking water so thoroughly and carefully, providing this early warning. He said Dakota County farmers generally have been willing to adjust their practices to follow the state's best practices guidelines in the use of pesticides, but even best practices guidelines might not be sufficient to ensure pure groundwater sources.

The County will continue to monitor drinking water quality by annually re-sampling the wells in the study. The County is also facilitating quarterly sampling of the City of Hastings' municipal wells for nitrate and pesticides. This week, the County is conducting a one-time sampling event of municipal wells belonging to other cities in Dakota County, as a survey of low levels of pesticides or nitrate in public drinking water supplies.

Citizens who have questions about the water quality test results should call the Dakota County Environmental Management Department staff at 952-891-7557, or visit the Dakota County website at: <http://www.co.dakota.mn.us/environ/water.htm>

This chart shows a cross-section of typical geology and aquifers in Dakota County. Depths of the aquifers vary.

The two main sources for drinking water in Dakota County are the Prairie du Chien and Jordan aquifers, for both private wells and municipal (city) wells. Water in sand and gravel below the surface is also a drinking water source in the County.



Nitrate and pesticides in private drinking water wells tested in Dakota County

