

Understanding Water Quality

The Joint Water Commission (JWC) cities of Crystal, Golden Valley and New Hope provide drinking water to their residents through a contract with the city of Minneapolis for treated surface water from the Mississippi River. To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) provides the same protection for public health by regulating the contaminants permitted in bottled water.

This Water Quality Report includes the results of monitoring done by the JWC on its drinking water from January 1 through December 31, 2010. The purpose of this report is to advance consumers' understanding of drinking water and heighten awareness of the need to protect precious water resources.

Although the water the JWC provides its residents meets drinking water standards, the Minnesota Department of Health has determined that the Mississippi River is potentially susceptible to contamination. If you wish to obtain the entire source water assessment for your drinking water, please call 651-201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view

the assessment online at www.health.state.mn.us/divs/eh/water/swp/swa.

If you have questions about your drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water, contact Bernie Weber, New Hope utilities maintenance supervisor, at 763-592-6762. Information about New Hope's drinking water is also available at the Joint Water Commission website, jwcontap.org, or the city of New Hope website, www.ci.new-hope.mn.us. For more information about the federal regulation of drinking water visit www.epa.gov/safewater.

Special Health Needs

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, including those with cancer undergoing chemotherapy, those who have had an organ transplant, those with HIV/AIDS or other immune system disorders,

some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their healthcare providers. EPA/Centers for Disease Control (CDC) provide guidelines on appropriate means to lessen the risk of infection by Cryptosporidium.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

2010 Tap Water Test Results

In 2010, no contaminants were detected at levels that violated federal drinking water standards. However, some contaminants were detected in trace amounts that were below legal limits. The table below shows the contaminants that were detected in trace amounts last year. (Some contaminants are sampled less frequently than once a year; as a result, not all contaminants were sampled for in 2010). If any of these contaminants were detected the last time they were sampled, they are included in the table along with the date that that detection occurred.

Regulated Substances – Several substances have Maximum Contaminant Levels (MCLs) set by the EPA. This is the highest level allowed in drinking water. Some regulated contaminants also have MCL Goals (or MCLGs). This is the level of a substance where there is no known or expected health risk. MCLGs allow for a margin of safety. MCLs are set as close to MCLGs as possible using the best available treatment technology. All water systems must monitor about 80 regulated substances.

Regulated Substance Detected (units)	MCLG	MCL	Level Found in Joint Water Commission Water		Typical Source of Contaminant
			Range (2010)	Average Result*	
Fluoride (ppm)	4	4	.93-1.1	1.06	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; erosion of natural deposits, discharge from fertilizer and aluminum factories
Haloacetic Acids (HAA5) (ppb)	0	60	9.3-24.9	23.4	By-product of drinking water disinfection
Nitrate (as Nitrogen)	10.4	10.4	N/A	.36	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits
Total Trihalomethanes (ppb)	0	80	11.3-30.6	23.18	By-product of drinking water disinfection

*This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is the average, it may contain sampling results from the previous year.

Non-Native Speakers

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien. Noy yog ntaub tseem ceeb. Yog koy tsi to taub, nrhiav neeg pab txhais rau koh kom sai sai.

Compliance with National Drinking Water Regulations

Before water is used for a water supply, it is tested for contaminants and other water quality factors. The sources of drinking water (both tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over land or through the ground it dissolves naturally occurring minerals and, in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

Microbial Contaminants:

Viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife

Inorganic Contaminants:

Salts and metals which may be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming

Pesticides and Herbicides:

May come from a variety of sources such as agricultural, urban stormwater runoff, and residential uses

Organic Chemical Contaminants (including synthetic and volatile organic chemicals):

By-products of industrial processes and petroleum production can also come from gas stations, urban stormwater runoff, and septic systems

Radioactive Contaminants:

Can occur naturally or result from oil and gas production and mining activities

Lead and Copper – If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily the result of plumbing corrosion in individual homes, not the water distribution system. The city of New Hope is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When water has been sitting in the pipes for several hours, you can substantially reduce the amount of lead in your water by simply letting the tap run for 30 seconds to two minutes before using the water for drinking or cooking. If you are concerned about lead in your water, you may want to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Substance Detected (6/9/09) (units)	MCLG	Action Level	90% of Samples Were Below This Level	Number of Samples Exceeding Action Level	Typical Source of Contaminant
Lead (ppb)	0	15	10	2 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	1.3	1.3	.09	0 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits

Turbidity – Turbidity, which is a measure of the clarity of the water, is monitored at the Minneapolis Water Works treatment plant as a measure of the effectiveness of the filtration system. EPA requires: 1) certain treatment processes be used to reduce turbidity; 2) 95% of monthly samples to be below 0.5 Nephelometric Turbidity Units (NTU); and 3) all samples to be less than 5 NTU.

Turbidity Monitored	MCLG	Action Level	Lowest Monthly Percentage of Samples Meeting Turbidity Limits	Highest Single Measurement	Typical Source of Substance
Turbidity (NTU)	N/A	TT	99.8	0.33	Soil runoff

Chlorine – The Minneapolis Water Works adds chlorine to water during the treatment process to control microbes. Chlorine has a Maximum Residual Disinfectant Levels (MRDL) and a Maximum Residual Disinfectant Level Goal (MRDLG) set by the EPA.

Contaminant (units)	MRDLG	MRDL	Lowest and Highest Monthly Average	Highest Quarterly Average	Typical Source of Contaminant
Chlorine (ppm)	4	4	.4-3.4	2.56	Additive used to control microbes

Unregulated Substances – Many substances are monitored but not regulated. They are evaluated using state standards known as health risk limits to determine if they pose a threat to human health. If unacceptable levels of an unregulated contaminant are found, the response is the same as if an MCL has been exceeded; the water system must inform its customers and take other corrective actions. Sodium and Sulfate were last sampled for on July 3, 2008.

Unregulated Substance Detected (7/3/08) (units)	Level Found		Typical Source of Contaminant
	Range (2009)	Average Result	
Sodium (ppm)	N/A	9.9	Erosion of natural deposits
Sulfate (ppm)	N/A	25.5	Erosion of natural deposits

Key to Abbreviations

† ppb - parts per billion † ppm - parts per million
 † pCi/l - Pico Curries per liter † TT - treatment technique † N/A - Not Applicable