DRINKING WATER INFORMATION

The sources of drinking water (both tap water and boiled water) included rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the 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 animal or human activity. Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operation and wildlife.

Inorganic contaminants, such as salts and metals which can be naturally-occurring or results from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum productions, and can also come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

SPECIAL HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, person who have undergone organ transplants, people 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 health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline:

1-800-426-4791
http://www.epa.gov/safewater

THE WATER YOU DRINK

In order 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. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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. 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.

Elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Duluth is responsible for providing high quality drinking water, but cannot control the materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish 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.

THE CITY OF DULUTH MINNESOTA

City of Duluth

2012 Drinking Water Quality Report

The City of Duluth Public Works and Utilities staff strives to provide safe, quality drinking water and high quality service to residents. We encourage you to contact us and tell us about your water quality and service. We also encourage water customers to learn more about drinking water quality issues. If you have questions or want information about opportunities for public participation in decisions that may affect water quality, please contact the Duluth Public Works and Utilities chemist, Loren Janson, at 218-730-4160.

PWSID: 169001

DRINKING WATER REPORT

The City of Duluth is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2012. The purpose of this report is to inform consumers on laboratory testing of the drinking water and heighten awareness of the need to protect precious water resources.

RESULTS OF MONITORING

This year again brings good news: No contaminants were found at levels that violated federal drinking water standards. The table on the right shows the contaminants that were detected in trace amounts last year.

LAKE SUPERIOR SUPPLIES DULUTH WITH DRINKING WATER

The source water supply for the City of Duluth is a surface water source: Lake Superior. The Minnesota Department of Health has determined that one or more sources of your drinking water are susceptible to contamination. If you wish to obtain the entire source water assessment regarding your drinking water, please call **1-800-818-9318** during normal business hours. You can also view it online at **www.health.state.mn.us/divs/eh/water/swp/swa.**

DULUTH DRINKING WATER TABLE FOR 2012

Detected Substance (units) **MCL** (highest level allowed in water by EPA) **MCLG** (level where there is no known health risk)	Results for Duluth Tap Water Level Found Average/ Result*	 Range of Detections	Typical Source of Substance in Drinking Water
Inorganic substances: minerals, salts, and metals with natural and man-made origins			
Fluoride (ppm) MCL: 4.0; MCLG: 4.0	1.1	0.8-0.95	MN requires municipal systems to add fluoride to promote strong teeth; erosion of natural deposits; fertilizer and aluminum factory discharge.
Nitrate MCL: 10.4; (as Nitrogen) MCLG: 10.4 (ppm)	0.36	N/A	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks and sewage.
Chlorine as chloramine (ppm) MRDL: 4.0; MRDLG: 4.0	Highest Quarterly Avg. 0.95	Highest and Lowest Monthly Avg. 0.8-1.0	Water additive used to control microbes.
Copper (ppm) (8/13/10) AL: 1.3 (90% of samples must be <15ppb) MCLG: 1.3	90% level <0.06	0 out of 30 sites over AL >1.3ppm	Corrosion of household plumbing systems; erosion of natural deposits.
Lead (ppb) (8/13/10) AL: 15 (90% of samples must be <15ppb) MCLG: 0	90% level <9.9	# sites over AL 1 out of 30 homes >15ppb	Corrosion of household plumbing systems; erosion of natural deposits.
Sodium (ppm) No established EPA limits	8.39	–	Erosion of natural deposits.
Sulfate (ppm) No established EPA limits	8.48	–	Erosion of natural deposits.
Turbidity (NTU) MCLG: N/A; MCL: TT	**0.029	***100%	Soil runoff. Turbidity is a measure of water clarity. It is a good indicator of filtration effectiveness.
	**Highest single measurement. ***Lowest monthly percentage of samples meeting limits.		
Radiologicals: naturally-occurring radioactive substances			
Combined Radium (pCi/L) (12/23/02)	0.91		By-product of drinking water disinfection.
Organic substances: usually of man-made origin			
TTMH (Total Trihalomethanes) (ppb) MCL: 80; MCLG: 0	14.07	8.2-24.6	By-product of drinking water disinfection.
Haloacetic Acids (ppb) MCL: 60; MCLG: None set	9.43	nd-16	By-product of drinking water disinfection.
Total Organic Carbon	Zero quarters out of compliance.	16%-47% removal	Naturally present in the environment.

*This is the value used to determine compliance with federal standards.

KEY TO ABBREVIATIONS:

MCLG ~ Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MCL ~ Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

The MCL for lead and copper is known as the Action Level (AL). This is the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

Ninety percent of the samples tested must be less than the Action Level for compliance. Some contaminants do not have Maximum Contaminant Levels established for them. These "unregulated contaminants" are assessed 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 that other corrective actions.

90th Percentile Level ~ This is the value obtained after disregarding 10% of the samples taken that had the highest levels.

OTHER DEFINITIONS:

AL ~ Action Level
The concentration of a contaminant which, if exceeded, triggers treatment or other requirement which a water system must follow.

pCi/L ~ PicoCuries per liter
A measure of radioactivity.

TT ~ Treatment Technique
A required process intended to reduce the level of contaminants in drinking water.

ppb ~ Part per billion
Also expressed as micrograms per liter (ug/l).

ppm ~ Part per million
Also expressed as miligrams per liter (mg/l).

nd ~ Not detected.

MRDL ~ Maximum Residual Disinfectant Level

MRDLG ~ Maximum Residual Disinfectant Level Goal

NTU ~ Nephelometric Turbidity Units
Used to measure clarity in drinking water.

N/A ~ Not applicable/Does not apply.