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, 2009. 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.

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.**

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

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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 sytems.

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

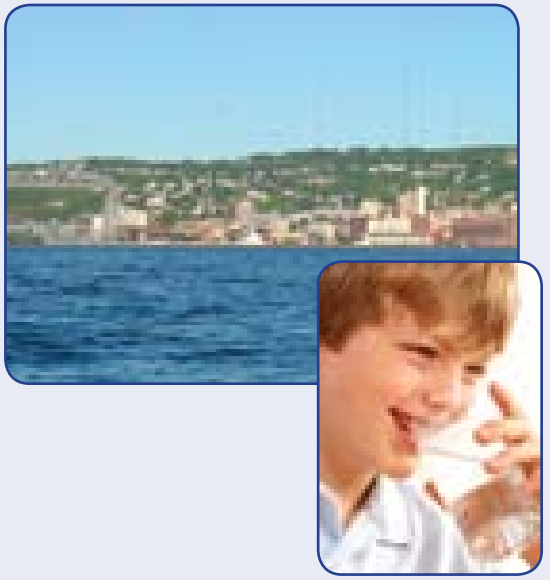
SPECIAL HEALTH INFORMATION

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 infetion by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline:

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

City of Duluth

2009 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 218-525-0834.

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.

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.

DULUTH DRINKING WATER TABLE FOR 2009

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	 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	1.13	1.0-1.1	Additive for strong teeth; erosion of natural deposits; fertilizer and aluminum factory discharge.
Nitrate as Nitrogen (ppm) MCL: 10.0; MCLG: 10.0	0.37	N/A	Erosion of natural deposits; runoff from fertilizer use; leaching from septic tanks, and sewage.
Chlorine (ppm) MRDL: 4.0; MRDLG: 4.0	Highest Quarterly Avg. 0.95	High and Low Month 0.7-1.2	Water additive used to control microbes.
Copper (ppm) (8/29/07) AL: 1.3 (90% of samples must be <15ppb) MCLG: N/A	90% of samples <0.03	0 out of 30 samples tested >1.3ppm	Corrosion of household plumbing systems; erosion of natural deposits.
Lead (ppb) (8/29/07) AL: 15 (90% of samples must be <15ppb) MCLG: N/A	90% of samples <11.0	1 out of 30 homes >15ppb	Corrosion of household plumbing systems; erosion of natural deposits.
Sodium (ppm) (5/18/07) No established EPA limits	4.5	–	Erosion of natural deposits.
Sulfate (ppm) (5/18/07) No established EPA limits	6.91	–	Erosion of natural deposits.
Turbidity (NTU) MCLG: N/A; MCL: TT	*0.042 *Highest single measurement. **Lowest monthly percentage of samples meeting limits.	**100%	Soil runoff.
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 Total Thihalomethanes (ppb) MCL: 80; MCLG: 0	14.73	9.1-13.3	
Haloacetic Acids (ppb) MCL: 60; MCLG: None set	9.58	4.7-8.0	By-product of drinking water disinfection.

OTHER DEFINITIONS:

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

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.