

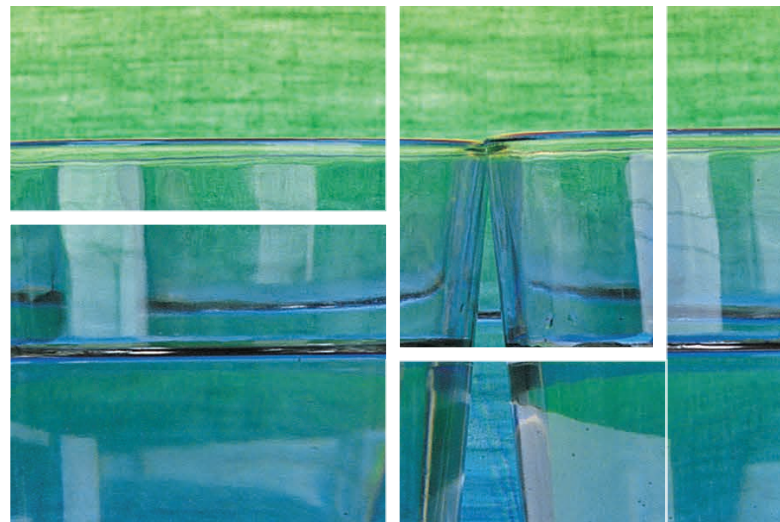
City of St. Louis Park

2010

WATER
QUALITY
REPORT

 **St. Louis Park**
MINNESOTA

Experience LIFE in the Park



The City of St. Louis Park

is issuing the results of monitoring done on its drinking water for the period from January 1 to 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.

Source of Water

The City of St. Louis Park provides drinking water to its residents from a groundwater source: 14 wells ranging from 286 to 1,095 feet deep, that draw water from the Prairie v Chien-Jordan, Mt. Simon, Jordan-St. Lawrence, and St. Peter aquifers.

The water provided to customers may meet drinking water standards, but the Minnesota Department of Health has also made a determination as to how vulnerable the source of water may be to future contamination incidents. If you wish to obtain the entire source water assessment regarding your drinking water, please call (651) 201-4700 or 1-800-818-9318 (and press 5) during normal business hours. Also, you can view it on line at: www.health.state.mn.us/divs/eh/water/swp/swa.

Call (952) 924-2562 if you have questions about the City of St. Louis Park drinking water or would like information about opportunities for public participation in decisions that may affect the quality of the water.



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.

MRDL - Maximum Residual Disinfectant Level.

MRDLG - Maximum Residual Disinfectant Level Goal.

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

90th Percentile Level - This is the value obtained after disregarding 10 percent of the samples taken that had the highest levels. (For example, in a situation in which 10 samples were taken, the 90th percentile level is determined by disregarding the highest result, which represents 10 percent of the samples.) Note: In situations in which only 5 samples are taken, the average of the two with the highest levels is taken to determine the 90th percentile level.

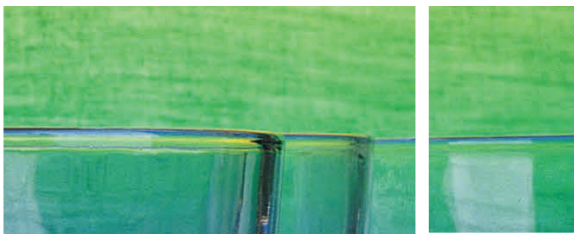
pCi/l - PicoCuries per liter (a measure of radioactivity).

ppm - Parts per million, which can also be expressed as milligrams per liter (mg/l).

ppb - Parts per billion, which can also be expressed as micrograms per liter (µg/l).

nd -No Detection.

N/A - Not Applicable (does not apply).



ABOUT Your Water

Results of Monitoring

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 that follows 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 for, they are included in the table along with the date that the detection occurred.)

Contaminant Units	MCLG	MCL	Level Found		Typical Source of Contaminant
			Range 2010	Average/ Result*	
Alpha Emitters (pCi/l)	0	15.4	N/A	9.8	Erosion of natural deposits.
Barium (ppm) (03/24/2008)	2	2	N/A	.19	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Combined Radium (pCi/l)	0	5.4	N/A	4.2	Erosion of natural deposits.
Fluoride (ppm)	4	4	1-1.2	1.15	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	N/A	1.7	By-product of drinking water disinfection.
Nitrate (as Nitrogen) (ppm)	10.4	10.4	nd-.13	.13	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
TTHM (Total trihalomethanes) (ppb)	0	80	N/A	1.86	By-product of drinking water disinfection.
Trichloroethylene (ppb)	0	5	nd-.28	.24	Discharge from metal degreasing sites and other factories.
Vinyl Chloride (ppb)	0	2	nd-2.2	1.93	Leaching from PVC piping; Discharge from plastics factories.
Xylenes (ppm)	10	10	nd-.0005	.001	Discharge from petroleum factories; Discharge from chemical factories.
cis-1,2-Dichloroethylene (ppb)	70	70	nd-12	10.23	Discharge from industrial chemical factories.
trans-1,2-Dichloroethylene (ppb)	100	100	nd-.4	.31	Discharge from industrial chemical factories.

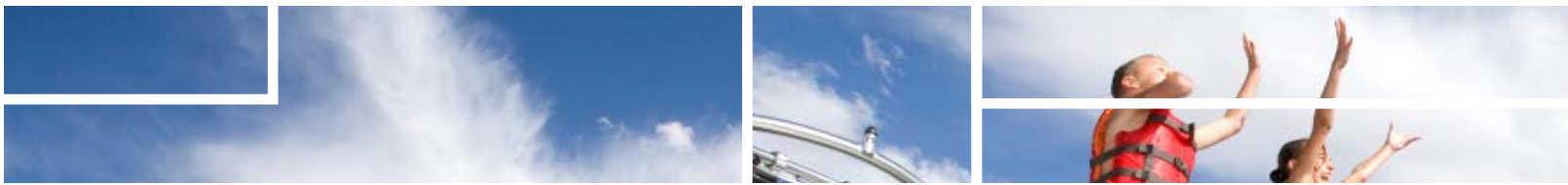
*This is the value used to determine compliance with federal standards. It sometimes is the highest value detected and sometimes is an average of all the detected values. If it is an average, it may contain sampling results from the previous year.

Contaminant Units	MRDLG	MRDL	****	*****	Typical Source of Contaminant
Chlorine (ppm)	4	4	.5-1	.82	Water additive used to control microbes.

****Highest and Lowest Monthly Average.

*****Highest Quarterly Average.

St. Louis Park is committed to education whether it is one-on-one or a group event. If you would like to learn more about how water works in your city, contact Utilities Superintendent Scott Anderson at (952) 924-2557 or sanderson@stlouispark.org.



Contaminant Units	MCLG	AL	90% Level	# sites over AL	Typical Source of Contaminant
Copper (ppm) (09/03/2009)	1.3	1.3	.23	0 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb) (09/03/2009)	0	15	6	1 out of 30	Corrosion of household plumbing systems; Erosion of natural deposits.

More About Lead


If present, 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 is responsible for providing high quality drinking water, but cannot control the variety of 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 <http://www.epa.gov/safewater/lead>.

Unregulated Contaminants

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 take other corrective actions. In the table that follows are the unregulated contaminants that were detected:

Contaminant Units	Level Found		Typical Source of Contaminant
	Range 2010	Average/Result	
Sodium (ppm) (03/24/2008)	N/A	29	Erosion of natural deposits.
Sulfate (ppm) (03/24/2008)	N/A	31.2	Erosion of natural deposits.

The *HARD* Truth



St. Louis Park water is from deep wells. The water has been estimated at over 8,000 years old. The water has been underground and has dissolved the salts and minerals for all those years. Calcium and magnesium cause water to be “hard” and both minerals are very common. The hardness is measured in grains, SLP water is 18 grains hard.

Why Doesn't St. Louis Park Provide Soft Water?

St. Louis Park chose not to include softening back in the 1960s when the first water treatment plants were being constructed. Currently the City operates 6 water treatment plants. The cost to convert to softening plants would be very expensive. It would include the purchase of private homes for the expansion of the water treatment plants to accommodate the water softening equipment, in addition to higher water rates.

Water Hardness Measured in Grains per gallon

Soft	Slightly Hard	Moderately Hard	Hard	Very Hard	St. Louis Park
Less than 1.0	1.0 - 3.5	3.5 - 7.0	7.0 - 10.5	10.5 and over	18.0

Monitoring for unregulated contaminants as required by U.S. Environmental Protection Agency rules (40 CFR 141.40) was conducted in 2010. Results of the unregulated contaminant monitoring are available upon request from Cindy Swanson, Minnesota Department of Health, at (651) 201-4656.

ABOUT Your Water

Compliance with National Primary Drinking Water Regulations

The sources of drinking water (both tap water and bottled water) include 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 animals or from human activity.

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 Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.



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 operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, which can be naturally occurring or result 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 byproducts of industrial processes and petroleum production, 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.

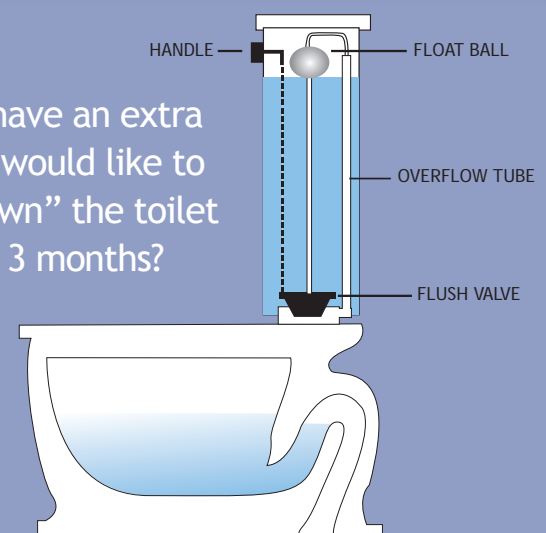
The Trouble With Toilets

Most people don't realize the amount of water and dollars wasted by a leaky toilet. A leaky toilet often is a silent water waster. A small leak at the *Flush Valve* or water flowing over the *Overflow Tube* can leak up to 100 gallons a day!

What You Can Do

- To check for a leaking **FLUSH VALVE**, use toilet leak dye packet (available at local hardware stores or call (952) 924-2562 for packets).
- To check for overflow, simply remove the tank lid and look for water overflowing.

Do you have an extra \$45 you would like to "flush down" the toilet every 3 months?



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, persons 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 at 1-800-426-4791.

ABOUT Your Water

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Water Towers Design and Function

A water tower is simply a large, elevated tank of water that provides storage and pressure. Each foot of height provides 0.43 PSI (pounds per square Inch) of pressure. The CLR tower maximum water level is 155 feet. $155' \times 0.43 \text{ lb/foot} = 67 \text{ psi}$.

- St. Louis Park has 3 water towers that provide even pressure throughout the City and provide 3 million gallons of storage. We also have 4 ground reservoirs that provide additional storage.
- The system works on level sensors that measure the water in the tower. The water operators set the levels based on how much water is going to be used; higher levels in the summer and lower in the winter.
- The sensor sends a signal to the pump at the ground reservoir that tells it the tower needs more water. The pump turns on and pumps, generally 1,000 gallons per minute of water from the ground reservoir to the water tower.
- In 2010 the city pumped 2,154,662,000 gallons of water - that is an average of 5,903,000 gallons per day. The highest pumpage for one day was 10,695,000 gallons.

Career Opportunities *Water Environment Technology*

St. Cloud Technical and Community College's Water Environment Technologies (WETT) program provides you with the skills you need to land a great job in this rapidly growing industry.

There are many benefits to this program:

- Hands-on learning
- 12-month program
- Metro and St. Cloud location
- 95% placement rates



Call St. Cloud Technical and Community College at: (320) 308-5952 for more information on this program or e-mail Instructor Bill Spain at bspain@sctcc.edu.

IN DEPTH: *A Look at Wells*

