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Permit No. 29

## 2006 Annual Water Quality Report

### We're pleased to present to you this year's Annual Water Quality Report.

This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water.

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

In 2006 the City of Crystal Lake Water Division distributed 1,754,835,000 gallons of water to our customers. Our water source is groundwater pumped from eleven wells, which are located throughout the city.

Your water is treated by using oxidation, chlorination disinfection, softening, fluoridation and filtration to remove or reduce harmful contaminants that come from the source water.

The City of Crystal Lake's source water assessment has been completed and is available at City Hall for public viewing.

The Illinois EPA determined the source water to be susceptible to contamination based upon a number of criteria including: monitoring conducted at the wells, monitoring conducted at the entry points to the distribution system and the available hydrogeologic data on the wells.

If you have any questions about this report or concerning your water utility, please contact Joe Nebel, Water Division Superintendent by calling (815) 459-2020 ext. 4041 or by writing to this address: PO Box 597, Crystal Lake, IL 60039-0597. We want our valued customers to be informed about their water utility. You are welcome and encouraged to attend City Council Meetings on the first and third Tuesday of each month at 7:30 p.m. in the City Council Chambers (100 W. Municipal Complex). Also, you can visit our web site at [www.crystallake.org](http://www.crystallake.org). Find out more on the Internet at <http://www.ccr-report.com>.

### The U.S. Environmental Protection Agency (EPA) wants you to know:

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 (1-800-426-4791).

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.

#### 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 storm water 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 storm water runoff, and residential uses.

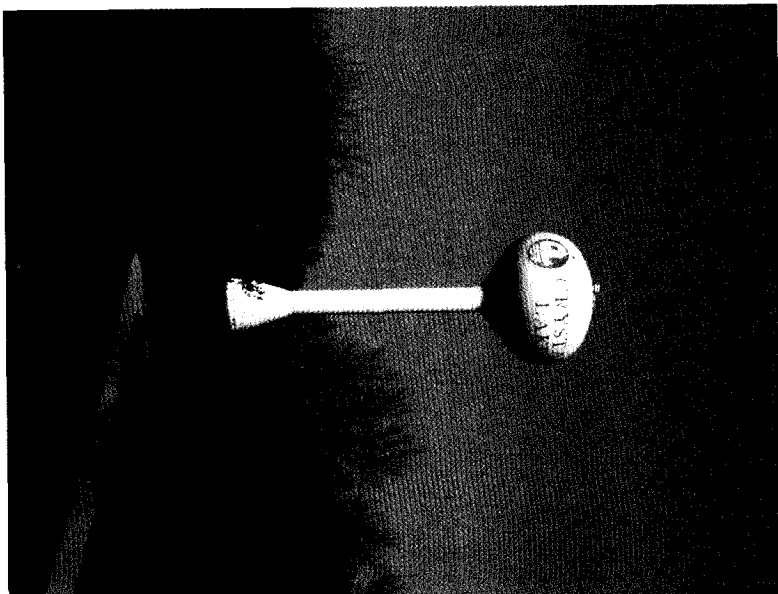
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

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

In order to ensure that tap water is safe to drink, the 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.



City of Crystal Lake  
100 W. Municipal Complex  
P.O. Box 597  
Crystal Lake, IL 60039-0597



City of Crystal Lake  
PWSID#11110150

**Regulated Contaminants Detected in 2006 ( collected in 2006 unless noted )**

Coliform Bacteria		Total Coliform	Highest No. of Positive Total	Fecal Coliform or E. Coli Maximum	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
Microbiological Contaminants	Maximum	5% of monthly samples are positive	0	Fecal Coliform or E. Coli MCL. A routine sample and proper sample are both coliform 200-vc and one is fecal coliform of 1 coliform	0	No	Naturally present in the environment.
<b>Lead and Copper</b>							
Lead ALG	Lead Action	Lead 90th Percentile	# of Sites Over AL	Date of Sample <sup>5</sup>	Violation	Likely Source of Contamination	
0 ug/l	15 ug/l	6	1	6/16/05	No	Corrosion of Household Plumbing. Naturally Present in the environment.	
Copper ALG	Copper Action	Copper 90th Percentile	# of Sites Over AL	Date of Sample <sup>5</sup>	Violation	Likely Source of Contamination	
1.33 mg/l	1.3 mg/l	0.33	1	7/27/05	No	Corrosion of household plumbing. Naturally Present in the environment.	

Regulated	Disinfectants and Disinfectant By - Products	Highest Level	Range of Levels	Unit of measurement	MCLG	MCL	Violation?	Date of Sample <sup>5</sup>	Likely Source Of Contaminants
Total Haloacetic acids HAAs	6.8	NA	ug/l	60	NO			By product of chlorination and disinfection.	
THMs (Total Trihalomethanes)	15.4	NA	ug/l	80	NO			By product of chlorination and disinfection.	
Chlorine	0.6545	6166 - 6545	mg/l	MRL-GCL	MRL-GCL			By product of chlorination and disinfection.	
<b>Inorganic Contaminants</b>									
Arsenic	0.55	0 - .55	ug/l	0	10	NO		By natural processes. Not a health concern.	
Barium	3.8	0.35 - 3.8	mg/l	2	2	NO		By natural processes. Not a health concern.	
Fluoride	1.2	95 - 1.2	mg/l	4	4	NO		By natural processes. Not a health concern.	
Nitrate - Nitrite	0	NA	mg/l	10	10	NO		By natural processes. Not a health concern.	
<b>Radioactive Contaminants</b>									
Combined Radium	0.3	1 - .3	pCi/l	0	50	NO		From natural sources.	
Alpha Emitters	1	NA	pCi/l	0	15	NO		From natural sources.	
<b>Volatile Organic Contaminants</b>									
cls - 1,2 - Dichloroethylene	6.43	0 - 6.43	ug/l	70	NO			By natural processes. Not a health concern.	
Dichloromethane	0.53	0 - .53	ug/l	0	5	NO		By natural processes. Not a health concern.	
Trichloroethylene	2.06	0 - 2.06	ug/l	0	5	NO		By natural processes. Not a health concern.	
<b>Synthetic Organic Contaminants</b>									
Dij (2-Ethylhexyl ) Phthalate	0	NA	ug/l	0	6	NO		By natural processes. Not a health concern.	
<b>State Regulated Contaminants</b>									
Iron <sup>2</sup>	84	0 - 84	ug/l	NA	1000	NO		From natural sources.	
Sodium <sup>3</sup>	280	76 - 280	mg/l	NA	NA	NO		From natural sources.	

**UnRegulated Contaminants <sup>4</sup>**

Contaminant	Unit	MCL	Level Found	Range of Detection	Date of Sample <sup>5</sup>	Potential Source of Contamination
Sulfate	mg/l	NA	58.2	0 - 58.2		Erosion of naturally occurring deposits.

**Additional Contaminants**

Boron	ug/l	NA	110	34 - 110		Erosion of natural deposits. Used in detergents and as water softener. Used in production of glass, cosmetics, pesticides, fire retardants, and for leather tanning.
Methyl Tertiary Butyl Ether (MTBE)	ug/l	NA	0.83	0 - .83		Exhaust from vehicles. Used as an octane booster in gasoline.

**2006 (Collected in 2006 unless noted)**

**Water Quality Test Results Definitions**

**Action Level ( AL ) :** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**Action Level Goal ( ALG ) :** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

**Maximum Contaminant Level ( MCL ) :** The highest level of a contaminant that is allowed in drinking water.

**Maximum Contaminant Level Goal ( MCLG ) :** 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.

**mg/l -** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

**ug/l:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

**pCi/l:** piconCuries per liter (measurement of radioactivity)

**NA:** not applicable

**90th Percentile:** 90% of samples are equal to or less than the number in the chart.

**avg.** Regulatory compliance with some MCL's are based on a running annual average of monthly samples.

**Maximum Residual Disinfectant Level ( MRDL ) :** The highest level of disinfectant allowed in drinking water.

**Maximum Residual Disinfectant Level Goal ( MRDLG ) :** The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLGs allow for a margin of safety.

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 (800-426-4791).

**\*\*The actual MCL for Beta Emitters is 4 millirems per year. The Illinois EPA states that this converts to approximately 50 pCi/l.**

Our water system was required to monitor for the contaminants required under the Unregulated Contaminant Monitoring Rule (UCMR). Results may be obtained by calling the contact listed on the first page of this report.

**Footnotes:**

- 1 Lead:** Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline: (800-426-4791)
- 2 Iron:** This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for suppliers serving a population of 1,000 or more.
- 3 Sodium:** There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.
- 4 Unregulated Contaminants:** A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has the mandatory health effects language. The purpose for monitoring this contaminant is to assist the USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.
- 5 Date of Sample:** The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.
- 6 Fluoride:** Fluoride is added to the water supply to promote strong teeth. The Illinois Department of Public Health recommends an optimal Fluoride range of 0.9mg/l to 1.2mg/l.
- 7 Barium:** A Barium violation occurs when the average of four quarterly samples exceed the MCL.