

# VILLAGE OF ITASCA WATER QUALITY REPORT 2011

## **About this report**

The Village of Itasca wants all consumers to be aware of what is being done to insure that the water you use is safe for you and your family. The Village of Itasca currently meets or exceeds all water quality standards set by the United States and Illinois Environmental Protection Agency. These agencies developed the Safe Drinking Water Act (SDWA), which sets the standards for water quality and monitors compliance. This report summarizes the quality of water for the period of January 1 to December 31, 2011, including details about where your water comes from, what it contains, and how it compares to standards set by the regulatory agencies.

If you have any questions about this report or concerns about your water system, please contact Glen Sullivan, Water & Wastewater Superintendent, at 630-773-5571. We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of the Village's regularly scheduled board meetings on Tuesday evenings at 7:00 p.m. at the Village Hall, 550 W Irving Park Road. This report will be available on the Village website [www.itasca.com](http://www.itasca.com)

## **Source Water Information**

The Village of Itasca receives Lake Michigan source water from the DuPage Water Commission. This surface water supply is treated by the City of Chicago, sold to the DuPage Water Commission (DWC), and then purchased by the Village for use by residents, businesses and visitors using water from the water supply.

Lake Michigan is the primary source of water used to provide drinking water to the Village of Itasca. The Environmental Protection Agency (EPA) has found the quality of Lake Michigan has improved dramatically over the past 20 years. Since the quality of the raw water source is good, conventional treatment methods of disinfection, coagulation and sedimentation, and sand filtration are adequate in producing water that is free of harmful contaminants.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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. 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 (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 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. 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.

## **Source Water Assessment Availability**

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regular scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Village Hall or call Glen Sullivan at 630-773-5571. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

## **Definition of Terms**

**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.*

**Maximum Contaminant Level (MCL):** *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.*

**Level Found:** *This column represents an average of sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.*

**Range of Detections:** *This column represents a range of individual sample results from lowest to highest that were collected during the CCR calendar year.*

**Date of Sample:** *If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.*

**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.*

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

**Treatment Technique (TT):** *A required process intended to reduce the level of a contaminant in drinking water.*

**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.*

## **Abbreviations**

**Avg.:** *Regulatory compliance with some JCLs are based on running annual average of monthly samples.*

**nd:** *not detectable at testing limits.*

**n/a:** *not applicable.*

**ppm:** *parts per million or milligrams per liter.*

**ppb:** *parts per billion or micrograms per liter.*

**ppt:** *parts per trillion, or nanograms per liter.*

**ppq:** *parts per quadrillion, or picograms per liter.*

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

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

**NTU:** *Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.*

**% < 0.5 NTU:** *Percent samples less than 0.5 NTU.*

**MFL:** *Million fibers per liter, used to measure asbestos concentration.*

**mrem/yr:** *millirems per year, used to measure radiation absorbed by the body.*

**pCi/l:** *picocuries per liter, used to measure radioactivity.*

**# pos/mo:** *number of positive samples per month.*

**% pos/mo:** *percent positive samples per month.*

## **WATER QUALITY TABLE**

### ***Microbial Contaminants / City of Chicago Results***

*Turbidity – Regulated at the Water Treatment Plant – Information Statement: Turbidity is a measurement of the cloudiness of the water*

caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

<i>Contaminant (unit of measurement)</i> <i>Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
TURBIDITY (%<0.3 NTU) Soil runoff. Lowest monthly percent meeting limit.	n/a	TT	99.50%	99.50% - 100.000%		
TURBIDITY (NTU) Soil runoff. Highest single measurement.	n/a	TT=1NTUmax	0.86	n/a		

### ***Inorganic Contaminants / City of Chicago Results***

<i>Contaminant (unit of measurement)</i> <i>Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries. Erosion of natural deposits.	2	2	0.0208	0.0201 – 0.0208		
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.44	0.39 – 0.44		
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.44	0.39 – 0.44		

### ***TOC (TOTAL ORGANIC CARBON)***

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.

### ***Inorganic Contaminants / Village of Itasca Results***

<i>Contaminant (unit of measurement)</i> <i>Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
ARSENIC (ppb) Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.	0	10	2.18	2.00 – 2.18	N	
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries. Erosion of natural deposits.	2	2	0.0275	0.0208 – 0.0275	N	
IRON (ppm) This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.		1.0	2.79	2.79 – 2.79	N	
MANGANESE (ppb) This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.	150	150	122	41.6 – 122	N	

### ***Inorganic Contaminants / Village of Itasca Results (continued)***

<i>Contaminant (unit of measurement)</i> <i>Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Highest Level</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
ZINC (ppm) naturally occurring deposits	5	5	.00515	.00515 - .00515	N	03/24/2008 Erosion of

## ***Inorganic Contaminants / Village of Itasca Results***

<b><i>Contaminant</i></b>	<b><i>MCLG</i></b>	<b><i>Action Level (AL)</i></b>	<b><i>90<sup>th</sup> Percentile</i></b>	<b><i># Sites Over</i></b>	<b><i>Violation</i></b>	<b><i>Likely Source of Contamination</i></b>
COPPER	1.3 ppm	1.3 ppm	.292 ppm	0	N	Erosion of natural deposits; leaching from wood Preservatives; Corrosion of household plumbing systems.

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. We are responsible for providing high quality drinking water, but we 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>.

## ***Disinfection/Disinfectant By-Products / Village of Itasca Results***

<b><i>Contaminant (unit of measurement)</i></b> <b><i>Typical Source of Contaminant</i></b>	<b><i>MCLG</i></b>	<b><i>MCL</i></b>	<b><i>Highest Level</i></b>	<b><i>Range of Detection</i></b>	<b><i>Violation</i></b>	<b><i>Date of Sample</i></b>
CHLORINE (as Cl <sub>2</sub> ) ppm Water additive used to control microbes.	MRDLG = 4	MRDL = 4	0.5	0.3667 – 0.5556	N	01/01/2011
TOTAL HALOACETIC ACIDS (HAA5) ppb By-product of drinking water chlorination.	No goal for the total	60	18	17.62 – 17.62	N	
TTHMs (Total Trihalomethanes) ppb By-product of drinking water chlorination.	No goal for the total	80	48	48.4 – 48.4	N	

Note: Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

## ***State Regulated Contaminants / City of Chicago Results***

<b><i>Contaminant (unit of measurement)</i></b> <b><i>Typical Source of Contaminant</i></b>	<b><i>MCGL</i></b>	<b><i>MCL</i></b>	<b><i>Highest Level</i></b>	<b><i>Range of Detection</i></b>	<b><i>Violation</i></b>	<b><i>Date of Sample</i></b>
FLUORIDE (ppm) Water additive which promotes strong teeth.	4	4	0.92	0.81 – 0.92		

## ***State Regulated Contaminants / Village of Itasca Results***

<b><i>Contaminant (unit of measurement)</i></b> <b><i>Typical Source of Contaminant</i></b>	<b><i>MCGL</i></b>	<b><i>MCL</i></b>	<b><i>Highest Level</i></b>	<b><i>Range of Detection</i></b>	<b><i>Violation</i></b>	<b><i>Date of Sample</i></b>
SODIUM (ppm) Erosion from naturally occurring deposits; Used in water softener regeneration.	n/a	n/a	116	86.1– 116	N	
FLUORIDE (ppm) Erosion of natural deposits; Water additive Which promotes strong teeth; Discharge from Fertilizer and aluminum factories.	4	4	0.251	0.195 – 0.251	N	

**Fluoride:** Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/ to 1.2 mg/l.

**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.

## ***Radioactive Contaminants / City of Chicago Results***

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCGL</i>	<i>MCL</i>	<i>Highest Level</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
COMBINED RADIUM (226/228) (pCi/l) Decay of natural and man-made deposits.	0	5	1.38	1.300 – 1.380		03/17/2008
GROSS ALPHA excluding radon and uranium (pCi/l) Decay of natural and man-made deposits.	0	15	0.88	0.090 – 0.880		03/17/2008

***Radioactive Contaminants / Village of Itasca Results***

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCGL</i>	<i>MCL</i>	<i>Highest Level</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
COMBINED RADIUM 226/228 (pCi/l) Erosion of natural deposits.	0	5	3.04	1.13 – 3.04	N	

***Unregulated Contaminants / City of Chicago Results***

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCGL</i>	<i>MCL</i>	<i>Highest Level</i>	<i>Range of Detection</i>	<i>Violation</i>	<i>Date of Sample</i>
SULFATE (ppm) Erosion of naturally occurring deposits.	n/a	n/a	16.1	14.4 – 16.1		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	n/a	n/a	6.64	6.63 – 6.64		

Unregulated Contaminants: A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

**UNREGULATED CONTAMINANT MONITORING RULE II (UCMR II)** Our water system was required to monitor for all contaminants required under the Unregulated Contaminant Monitoring Rule II (UCMR II). Started in 2009, monitoring under UCMR II was completed in 2011, with none of the contaminants detected. Inquiries and results may be obtained by calling the Water Quality Division office at (312) 742-7499