

VILLAGE OF ITASCA WATER QUALITY REPORT 2016

Keeping you informed on water quality in your community

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, 2016, 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 Michael Subers, Utilities Superintendent, at 630-773-2455. 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 also be available on the Village website 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 City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the Northern areas of the City and suburbs, while the South Water Purification Plant serves the southern areas of the City and suburbs. Lake Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin, and is the second largest Great Lake by volume with 1,180 cubic miles of water and the third largest by area.

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.

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.

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.

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.

Additional Information 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 Village of Itasca 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 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>

Source Water Assessment

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist the watershed protection of public drinking water supplies. The SWAP inventoried potential sources of contamination and determined the susceptibility of the source water to contamination. The EPA has completed the Source Water Assessment Program for our water supply. Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at (312)744-6635

Susceptibility to Contamination

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

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

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: a level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

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 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.

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.

Contaminant (unit of measurement) Typical Source of Contaminant	MCGL	MCL	Highest Level	Range of Detection	Violation	Date of Sample
<u>TURBIDITY (% < 0.3 NTU)</u> Soil runoff. Lowest monthly percent meeting limit.	N/A	TT (95% ≤ 0.3NTU)	100%	100% - 100.0%		
<u>TURBIDITY (NTU)</u> Soil runoff. Highest single measurement.	N/A	TT (1NTU _{max})	0.16	N/A		

Inorganic Contaminants / City of Chicago Results

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level	Range of Detection	Violation	Date of Sample
<u>BARIUM (ppm)</u> Discharge of drilling wastes; Discharge from metal refineries. Erosion of natural deposits.	2	2	0.0206	0.0196 – 0.0206		
<u>NITRATE (AS NITROGEN) (ppm)</u> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.46	0.40 – 0.46		
<u>TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm)</u> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.46	0.40 – 0.46		

Total Organic Carbon (TOC) / City of Chicago

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

Unregulated Contaminants / City of Chicago Results

Contaminant (unit of measurement) Typical Source of Contaminant	MCGL	MCL	Highest Level	Range of Detection	Violation	Date of Sample
<u>SULFATE (ppm)</u> Erosion of naturally occurring deposits.	N/A	N/A	25.7	25.0-25.7		
<u>SODIUM (ppm) ***</u> Erosion of naturally occurring deposits; Used as water softener.	N/A	N/A	8.92	8.49-8.92		

State Regulated Contaminants / City of Chicago Results

Contaminant (unit of measurement) Typical Source of Contaminant	MCGL	MCL	Highest Level	Range of Detection	Violation	Date of Sample
<u>FLUORIDE (ppm)**</u> Water additive which promotes strong teeth.	4	4	0.78	0.62 – 0.78		

Radioactive Contaminants / City of Chicago Results

Contaminant (unit of measurement) Typical Source of Contaminant	MCGL	MCL	Highest Level	Range of Detection	Violation	Date of Sample
<u>COMBINED RADIUM (226/228) (pCi/l)</u> Decay of natural and man-made deposits.	0	5	0.84	.50 – .84		2014
<u>GROSS ALPHA excluding radon and uranium (pCi/l)</u> Decay of natural and man-made deposits.	0	15	6.6	6.1 – 6.6		2014

2015 Violation summary Table/ City of Chicago

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2015.

Coliform Bacteria/ Village of Itasca

Contaminant (unit of measurement) Typical Source of Contaminant	Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest no. of Positives	Fecal coliform or E.coli Maximum Contaminant Level	Total No. of Positive E.coli or Fecal coliform samples	Violation
<u>COLIFORM BACTERIA</u> Natural present in the environment.	0	1 positive monthly sample	0	N/A	0	N

Lead and Copper/ Village of Itasca*

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	Action Level (AL)	Amount Detected (90th%TILE)	Range of Detection	Violation	Date of Sample
<u>COPPER (ppm)</u> Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.	1.3 ppm	1.3 ppm	0.226 ppm	0-.337	N	7/22/2014
<u>Lead (ppm)</u> Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.	0 ppm	15 ppm	0	0	N	7/22/2014

Disinfection/Disinfectant By-Products / Village of Itasca Results

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level	Range of Detection	Violation	Date of Sample
<u>CHLORINE (as Cl₂) (ppm)</u> Water additive used to control microbes.	MRDLG = 4	MRDL = 4	1.0	0.6 – 1.0	N	12/31/2016
<u>TOTAL HALOACETIC ACIDS (HAA5) (ppb)</u> By-product of drinking water chlorination.	No goal for the total	60	.026	18.4-21.9	N	2016
<u>TOTAL TRIHALOMETHANES (TTHM) (ppb)</u> By-product of drinking water chlorination.	No goal for the total	80	.056	44.5-47.0	N	2016

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.

2015 Violation summary Table/ Village of Itasca

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2015

*triannual Monitoring: The State requires us to monitor for certain 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.

**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.