



Annual Drinking Water Quality Report

Cicero, IL ID#0310510 For the period of January 1, 2017 to December 31, 2017.



Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

This report is intended to provide you with important information about your drinking water and the efforts made by the Town of Cicero to provide safe drinking water. If you would like to learn more please contact Town Hall or visit our web site at www.thetownofcicero.com. There you will find the completed Illinois EPA Source Water Assessments; including current Town water Infrastructure projects. Regularly scheduled Cicero Town Board meetings take place on the 2nd and 4th Tuesday's of each month at 10am. You may also want to visit the Illinois EPA to access other information regarding Source Water; Susceptibility of Contamination Determination, and documentation and recommendations of Source Water Protection Efforts, at: <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

If there are any questions, or if additional information is needed, please contact Joe Virruso, Town Supervisor or Lido Manetti, Water Department Director at 708.656.3600.

CONSUMER EDUCATION

The Town of Cicero tests the water supply for chlorine content on a daily basis to maintain the optimum levels for the consumers' needs. On a monthly basis, bacteriological samples are taken. On a yearly basis, samples are submitted for Total Trihalomethane (TTHM) Analysis. Samples are also provided for lead and copper monitoring on a schedule established by the IEPA. All testing and reports are performed according to the requirements of IEPA.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

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. The Federal Drug Administration (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. The EPA and the Center of Disease Control and Prevention (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.

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. Lead is not found in the source water. Lead can enter drinking water when service pipes that contain lead corrode, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures. The most common problem is with brass or chrome-plated brass faucets and fixtures with lead solder, from which significant amounts of lead can enter into the water, especially hot water. Homes built before 1986 are more likely to have lead pipes, fixtures and solder. The Safe Drinking Water Act (SDWA) has reduced the maximum allowable lead content -- that is, content that is considered "lead-free" to be a weighted average of 0.25 percent calculated across the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures and 0.2 percent for solder and flux.

The Safe Drinking Water Act requires the EPA to determine the level of contaminants in drinking water at which no adverse health effects are likely to occur with an adequate margin of safety. These non-enforceable health goals, based solely on possible health risks, are called maximum contaminant level goals (MCLGs). The EPA has set the maximum contaminant level goal for lead in drinking water at zero because lead is a toxic metal that can be harmful to human health even at low exposure levels. Lead is persistent, and it can bioaccumulate in the body over time.

Measures to Reduce Lead in Drinking Water at Home: Flush your pipes before drinking. 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. Use only cold water for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. Run cold water until it becomes as cold as it can get. Note that boiling water will NOT get rid of lead contamination. Bathing and showering should be safe for you and your children, even if the water contains lead over EPA's action level. Human skin does not absorb lead in water. This information applies to most situations and to a large majority of the population, but individual circumstances may vary.

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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

Source of Drinking Water Contamination: (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 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 users.

Organic Chemical Contaminants: including synthetic and volatile organic chemicals, which are by-products of industrial process 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.

SOURCE WATER ASSESSMENT

In 2017 all of the water the Town of Cicero distributed came from Lake Michigan. Lake Michigan water is drawn from far offshore structures (known as cribs) along the bottom of the lake and treated at the City of Chicago Jardine Purification Plant (north of Navy Pier). This water is pumped by the City of Chicago through large transmission lines to the Town of Cicero pumping stations at 47th Ave and Roosevelt Road and Laramie Ave and Roosevelt Road. The water is then pumped at these stations through the Town's water main grid system to the residential, commercial, and public entity end users.

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 (not used for Town of Cicero water source supply) are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

Citizens should be aware that everyday activities in an urban setting might have a negative impact on their source water. Efforts should be made to improve awareness of storm water drains and their direct link to the lake within the identified local source water area. A proven best management practice (BMP) for this purpose has been the identification and stenciling of storm water drains within a watershed. Stenciling along with an educational component is necessary to keep the lake a safe and reliable source of drinking water.

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>.

REGULATED CONTAMINANTS TABLES

Regulated Disinfectants & Disinfection By-Products	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Units	Municipality	Violation	Collection Date	Likely Source of Contaminants
Chlorine	MRDLG = 4	MRDL = 4	0.9	0.7 — 1	ppm	Cicero	N	12/31/2017	Water additive used to control microbes.
	MRDLG = 4	MRDL = 4	1	1 — 1	ppm	Chicago	N	12/31/2017	
Haloacetic Acids (HAA5)	No Goal	60	14	7.55 — 15.84	ppb	Cicero	N	2017	By-Product of drinking water disinfection
	No Goal	60	14	6.1 — 16.4	ppb	Chicago	N	2017	
Total Trihalomethanes (TTHM)	No Goal	80	26	14.44 — 37.6	ppb	Cicero	N	2017	
	No Goal	80	26	13.4 — 34.8	ppb	Chicago	N	2017	

Inorganic Contaminants

Barium	2	2	0.0193	0.0191 — 0.0193	ppm	Chicago	N	2017	Discharge of drilling wastes; Discharge from refineries; Erosion of natural deposits.
Fluoride	4	4.0	0.6	0.539 — 0.579	ppm	Chicago	N	2017	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (Measured as Nitrogen)	10	10	0.359	0.321 — 0.359	ppm	Chicago	N	2017	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium			8	7.81 — 8.06	ppb	Chicago	N	2017	Erosion from naturally occurring deposits; used in water softener regeneration

Radio Active & Synthetic Organic Contaminants

Combined Radium 226/228	0	5	0.84	0.5 — 0.84	pCi/L	Chicago	N	02/11/2014	Erosion of natural deposits.
Gross alpha excluding radon and uranium	0	15	6.6	6.1 — 6.6	pCi/L	Chicago	N	02/11/2014	Erosion of natural deposits.

Coliform Bacteria

Total Coliform Maximum Contaminant Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. Positive E. Coli or Fecal Coliform Samples	Municipality	Violation	Likely Source of Contaminants
0	5% of Monthly Samples are positive.	1.3		0	Cicero	N	Naturally present in the environment.
0	5% of Monthly Samples are positive.	0.4		0	Chicago	N	

Lead and Copper	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Municipality	Violation	Date Sampled	Likely Source of Contaminants
Lead	0	15	6.35	0	ppb	Cicero	N	2017	Corrosion of household plumbing systems; Erosion of natural deposits.
	0	15	9.11	3	ppb	Chicago	N	9/20/2015	
Copper	1.3	1.3	0.0782	0	ppm	Chicago	N	9/20/2015	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.

Turbidity	Limit (Treatment Technique)	Level Detected	Municipality	Violation	Likely Source of Contaminants
Highest Single Measurement %	1 NTU	0.26 NTU	Chicago	N	Soil Runoff.
Lowest Monthly % meeting Limit	0.3 NTU	100%	Chicago	N	Soil Runoff.

DEFINITIONS OF TERMS / UNIT OF MEASUREMENT

Definitions of Terms:

Maximum Contaminant Level Goal (MCLG): The level of contaminant in drinking water below which there is no known / 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.

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

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

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 (AL): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

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

ND: Not detectable at testing limits. **N/A:** Not applicable

Turbidity: The measure of the cloudiness of water. We monitor it because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants.

Unit of Measurement:

ppb: Micrograms Per Liter or Parts Per Billion (or url), unit of measurement of concentration in 7,350,000 gallons of water.

ppm: Milligrams Per Liter or Parts Per Million (or mg/l), unit of measurement of concentration in 7,350 gallons of water.

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

%<0.3NTU: Percent samples less than 0.3 NTU pCi/L: Picocuries per liter, used to measure radioactivity

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.

UCMR3 COMPLIANCE

In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City of Chicago has monitored for 28 contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe Drinking Water Act (SDWA). The monitoring results were reported to the EPA. The list of UCMR3 contaminants that we have monitored include volatile organic chemicals, metals, perfluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below.

Disinfectants & Disinfection By-Products	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Units	Municipality	Report Year	Likely Source of Contaminants
Chromium	100	100	0.3	0.3 — 0.3	ppb	Chicago	2015	Naturally occurring element; used in making steel and other alloys
Molybdenum	N/A	N/A	1.1	1.0 — 1.1	ppb	Chicago	2015	Naturally occurring element found in ores and present in plants animals and bacteria; commonly used form molybdenum trioxide
Strontium	N/A	N/A	120	110 — 120	ppb	Chicago	2015	Naturally occurring element; has been used in cathode-ray tube TVs to block x-ray emissions
Vanadium	N/A	N/A	0.2	0.2— 0.2	ppb	Chicago	2015	Naturally occurring metal; vanadium pentoxide is used a catalyst
Chromium—6	N/A	N/A	0.19	0.18 — 0.19	ppb	Chicago	2015	Naturally occurring element; used in making steel and alloys

TOWN OF CICERO VIOLATION TABLES

Violation Type	Violation Begin	Violation End	Violation Explanation
Lead and Copper Rule			
The Lead and Copper rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly form corrosion of lead and copper containing plumbing materials.			
WATER QUALITY PRAMAMETER M/R (LCR)	01/01/2017	06/30/2017	We Failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
WATER QUALITY PRAMAMETER M/R (LCR)	07/01/2017	12/31/2017	We Failed to test our drinking water for the contaminant and period indicated. Because of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
What Happened?			
We are required to test our drinking water to confirm that it meets certain IEPA Water Quality Parameters (WQPs) levels for orthophosphate and pH as set by the Town's IEPA Special Exemption Permit (SEP). As per the (SEP) the City of Chicago treats the incoming water with orthophosphate as a corrosion inhibitor to meet the IEPA Optimal Corrosion Treatment requirements. During the January 1 to June 30, 2017 and the July 1 to December 31, 2017 monitoring periods, we did not complete all monitoring and reporting for these WQPs and therefore cannot be sure of the quality of our drinking water during these periods.			
What is being done?			
The Town of Cicero has assigned new personnel, purchased new digital monitoring equipment, and established new procedures to verify that these required WQPs are properly monitored and reported.			
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