

City of Des Plaines

2016

Consumer
Confidence
Report

A Message to Water Customers:

This report is intended to provide you with important information about your drinking water for the period of January 1 through December 31, 2016 and the efforts made by the City to provide safe drinking water.

We are happy to report your tap water met all USEPA and state drinking water standards and the City had no violation of a contaminant level or of any other water quality standard in 2016. This report summarizes water quality for 2016, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. Each year, we will provide you a new report as prescribed by regulations set by the USEPA.

From time to time, water issues are addressed at the Village Council Meetings. The City Council meets on the first and third Monday of each month at 7:00 pm, Room 102 in City Hall located at 1420 Miner Street, Des Plaines, IL 60016.

This report includes drinking water facts, information on violations (if applicable), and contaminants detected in your drinking water supply during calendar year 2016. Each year, we will provide you a new report. **Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.**

Source of Drinking Water

The City of Des Plaines purchases Lake Michigan water from two sources; the City of Chicago and the Northwest Water Commission (NWC). The City of Evanston is the sole supplier of finished, treated water to the NWC. Both the City of Evanston and the City of Chicago provide conventional surface water treatment of the raw lake water to provide a high-quality finished water product.

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.

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.

Contaminants that may be present in source water

- 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).

The chlorine level of the finished water delivered to the City is continually monitored and, if necessary, additional chlorine is added to protect against microbial contaminants before it is pumped into the distribution system.

Source Water Assessment Summary

The source water assessment for the City's drinking water supply has been completed by the Illinois EPA. A copy of this assessment is available by calling 847-391-5464. A brief summary of the Source Water Assessment is included below.

EVANSTON: 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 intakes with no protection only dilution, which is the reason for mandatory treatment for all surface water supplies in Illinois. All three of Evanston's intakes are located far enough offshore that shoreline impacts are not considered a factor on water quality. However, at certain times of the year the potential for contamination exists due to the proximity of the North Shore Channel and wet-weather flows. In addition, the proximity to a major shipping lane adds to the susceptibility of these three intakes.

CHICAGO: 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.

DEFINITIONS

Here are a few definitions and scientific terms which will help you understand the information in the contaminant detection tables.

- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that 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.
- **Average (Avg):** Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- **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 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 Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **ppb:** Parts per billion or micrograms per liter (ug/L); or one ounce in 7,350,000 gallons of water.
- **ppm:** Parts per million or milligrams per liter (mg/L); or one ounce in 7,350 gallons of water.
- **Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.
- **N/A:** Not applicable
- **pCi/L:** Picocuries per Liter, used to measure radioactivity
- **NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

If you have any questions please contact us:

City of Des Plaines
Public Works and Engineering
Annual Water Quality Report
For Calendar Year 2016
Facility ID – IL0310630
847-391-5464
www.desplaines.org

City of Des Plaines – IL0310630

Regulated Contaminates							
Substance (Unit of Measure)	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination
Chlorine (ppm)	12/31/2016	MRDLG = 4	MRDL = 4	1	.9 - 1.1	No	Water additive used to control microbes.
Haloacetic Acids HAA5 (ppb)	2016	No goal for the total	60	21	1.14 - 19.93	No	By-product of drinking water disinfection.
Total Trihalomethanes (ppb)	2016	No goal for the total	80	42	18.81 - 50.3	No	By-product of drinking water disinfection.
Lead and Copper							
Substance (Unit of Measure)	Collection Date	MCLG	AL	90 th Percentile	# Sites over AL	Violation	Likely Source of Contamination
Lead (ppb)	2016	0	15	0	1	No	Corrosion of household plumbing systems; Erosion of natural deposits.

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 of Des Plaines 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 www.epa.gov/safewater/lead.

Northwest Water Commission – IL0315300

Regulated Contaminates							
Substance (Unit of Measure)	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contamination
Chloramines (ppm)	06/17/08	4	4	1.13	1.13 – 1.13	No	Water additive used to control microbes.
Haloacetic Acids HAA5 (ppb)	2016	No goal for the total	60	36	28.6 – 36.4	No	By-product of drinking water disinfection.
Total Trihalomethanes (ppb)	2016	No goal for the total	80	18	13.94 – 17.58	No	By-product of drinking water disinfection.

City of Chicago – IL031600

Inorganic Contaminants							
Substance (Unit of Measure)	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contaminant
Barium (ppm)	2016	2	2	0.0206	0.0196 – 0.0206	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (as Nitrogen) (ppm)	2016	10	10	0.46	0.40 – 0.46	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Nitrate & Nitrite (as Nitrogen) (ppm)	2016	10	10	0.46	0.40 - 0.46		Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	2016	4	4	0.78	0.62 - 0.78		Water additive which promotes strong teeth
Total Organic Carbon (TOC)							
TOC	The percentage of TOC removal was measured each month and the system met all TOC removal requirements set by IEPA						
Unregulated Contaminants							
Sulfate (ppm)	2016	N/A	N/A	25.7	25.0 – 25.7		Erosion of naturally occurring deposits
Sodium (ppm) ¹	2016	N/A	N/A	8.92	8.49 – 8.92		Erosion of naturally occurring deposits; Used as water softener
Radioactive Contaminants							
Combined Radium (226/228) (pCi/L)	2/11/2014	0	5	0.84	0.50 – 0.84		Decay of natural and man-made deposits.
Gross Alpha excluding radon and uranium (pCi/L)	2/11/2014	0	15	6.6	6.1 – 6.6		Decay of natural and man-made deposits.

City of Evanston – IL0310810

Inorganic Contaminants							
Substance (Unit of Measure)	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Violation	Likely Source of Contaminant
Barium (ppm)	2016	2	2	0.02	0.02 – 0.02	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (as Nitrogen) (ppm)	2016	10	10	1	0.6 – 0.6	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	2016	4	4	0.7	0.7 – 0.7	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from Fertilizer and aluminum factories

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

Unregulated Contaminants							
Sodium (ppm) ¹	2016	N/A	N/A	7.7	7.7 – 7.7	No	Erosion of naturally occurring deposits; Used as water softener

Radioactive Contaminants							
Combined Radium (226/228) (pCi/L)	1/16/2014	0	5	0.65	0.19 – 0.38	No	Decay of natural and man-made deposits.
Gross Alpha excluding radon and uranium (pCi/L)	1/16/2014	0	15	1.2	0.16 – 0.36	No	Decay of natural and man-made deposits.

Turbidity²						
	Limit (Treatment Technique)	City of Chicago		City of Evanston		Likely Source of Contaminant
		Level Detected	Violation	Level Detected	Violation	
Lowest Monthly, %≤0.3 NTU	0.3 NTU	100%	No	99.7%	No	Soil Runoff
Highest Single Measurement	1 NTU	0.16 NTU	No	0.61 NTU	No	Soil Runoff

- Sodium:** There is no 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.
- Turbidity:** is a measurement of the cloudiness of the water caused by suspended particles. Both the City of Evanston and the City of Chicago monitor turbidity because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants.

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.

City of Chicago 2016 Voluntary Monitoring: The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes has been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. Also, in compliance with the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has continued the 24 month s long monitoring program that was started in April 2015, collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia, E. coli and turbidity, with no detections for Cryptosporidium and Giardia reported so far. In 2016, Chicago Department of Water Management has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources.