



CITY OF BERWYN, ILLINOIS

2016 Consumer Confidence Report
Public Water Supply Facility ID: IL0310210
Robert J Lovero, Mayor

May, 2017

Dear Berwyn Water Customer;

The City of Berwyn, in compliance with the Safe Drinking Water Act (SDWA), is issuing the Consumer Confidence Report (CCR) for the monitoring period of January 1, 2016 through December 31, 2016. The City of Berwyn, in conjunction with the City of Chicago and Illinois Environmental Protection Agency (Illinois EPA) are issuing this report to you with important information concerning the quality and source of your drinking water. The City of Berwyn continues to provide water that meets all the requirements of the United States Environmental Protection Agency (USEPA) and the Illinois EPA drinking water standards.

For 2016 the City of Berwyn has been in Full IEPA Compliance with No Violations.

If you would like to learn more, please contact City Hall or visit our web site at <http://www.berwyn-il.gov/> There you will find the completed Illinois EPA Source Water Assessments; including current City Water Infrastructure projects and see our regularly scheduled meetings dates and times. 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>.

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

If there are any questions, or if additional information is needed, please contact Robert Schiller, Director of Public Works, at (708) 749-4700.

Additional Information

The City Council also meets on the second and fourth Tuesday of every month at 8:00 p.m. in the Council Room at the City Hall. These meetings are open to the public. . Also, you can contact USEPA's Safe Drinking Water Hotline at: (1-800-426-4791).

Lawn Care Recommendations

The City of Berwyn recommends to water deeply and infrequently. One inch of water per week is ideal and over-watering wastes your money. Over-watering removes plant nutrients from the soil and can cause disease problems in your lawn.

The City of Berwyn follows the water conservation recommendations of the IEPA on sprinkling restrictions. The City restricts sprinkling to the hours between 5:00 am to 9:00 am and 7:00 p.m. to 10:00 p.m. during the period of May 15 to September 15.

CONSUMER INFORMATION

The City of Berwyn 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 EPA's 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 2016 all of the approximately 1.75 Billion gallons of water the City of Berwyn 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 Water Purification Plant (north of Navy Pier). This water is pumped through large transmission lines to the near Chicago suburbs where it is collected and redistributed. Berwyn purchases this water directly from the City of Chicago through two separate connections along Roosevelt Road. From there Berwyn brings this water to one of two reservoir pumping stations either on 19th Street or 30th Street facilities. Then it is distributed through the City's water main grid system of nearly 95 miles of pipe to the local and retail customer base.

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 Berwyn 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>.

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 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.

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 CCR 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

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	0.8	0.6 — 1	ppm	Berwyn	N	12/31/2016	Water additive used to control microbes.
	MRDLG = 4	MRDL = 4	1	1 — 1	ppm	Chicago	N	12/31/2016	
Haloacetic Acids (HAA5)	No Goal	60	16	11.53 — 20.95	ppb	Berwyn	N	2016	By-Product of drinking water disinfection
	No Goal	60	14	2.5 — 25.9	ppb	Chicago	N	2016	
Total Trihalomethanes (TTHM)	No Goal	80	32	15.29 — 43.4	ppb	Berwyn	N	2016	
	No Goal	80	26	10.1 — 45.4	ppb	Chicago	N	2016	
Inorganic Contaminants									
Barium	2	2	0.0206	0.0196 — 0.0206	ppm	Chicago	N	2016	Discharge of drilling wastes; Discharge from refineries; Erosion of natural deposits.
Fluoride	4	4.0	0.7	0.652 — 0.657	ppm	Chicago	N	2016	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (Measured as Nitrogen)	10	10	0.462	0.405 — 0.462	ppm	Chicago	N	2016	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium			8.92	8.49 — 8.92	ppb	Chicago	N	2016	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.	1.6		0	Berwyn	N	Naturally present in the environment		
0	5% of Monthly Samples are positive.	0.9		0	Chicago	N	Naturally present in the environment.		

REGULATED CONTAMINANTS TABLES CONTUNED

Lead and Copper									
	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Municipality	Violation	Date Sampled	Likely Source of Contaminants
Lead	0	15	3.59	1	ppb	Berwyn	Y**	12/16/2015	Corrosion of household plumbing systems; Erosion of natural deposits.
	0	15	9.11	3	ppb	Chicago	N	09/20/2015	
Copper	1.3	1.3	0.0782	0	ppm	Chicago	N	09/20/2015	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		0.45 NTU	Chicago		N		Soil Runoff.	
Lowest Monthly % meeting Limit	0.3 NTU		100	Chicago		N		Soil Runoff.	

**** VIOLATION COMPLIANCE**

The City of Berwyn is in full compliance with the IEPA and has reformed our lead and copper monitoring and testing procedures. During the Sampling period of 1/1/2012 through 12/31/2014 the City was sited for failure to issue public notice for lead service line replacement, submission of a public notice and certification to the IEPA and to initiate a lead service line replacement program. The City has corrected all prior compliance violations and is currently in full compliance. Note, the replacement of lead water service lines has been and still is the customer's responsibility.

On April 19, 2016 the IEPA confirmed compliance for the Lead Service Line Materials Evaluation & Replacement Schedule dated February 03, 2016 and acknowledges receipt of issued public notice and certification to the IEPA on March 16, 2016.

Please Note that the Actual Sample taken on 12/16/15 Tested Non-Detectable for Lead.

FOR 2016 THE CITY OF BERWYN HAS BEEN IN FULL IEPA COMPLIANCE

The city has worked hard to ensure that all monitoring, testing and operating procedures strictly adhere to the latest IEPA regulations. We are committed to provided safe and reliable water to our customers.

CITY OF CHICAGO VIOLATION TABLE

Consumer Confidence Rule			
The Consumer Confidence Rule requires community water system to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the water delivered by the system.			
Violation Type	Violation Begin	Violation End	Violation Explanation
CCR REPORT	07/01/2015	08/03/2015	We Failed to provide to you, our drinking water customers, an annual report that informs you about the quality if our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water.
Interim Enhanced SWTR			
The Interim Enhanced Surface Water Treatment (SWTR) Rule improves control of microbial contaminants, particularly cryptosporidium, in systems using surface water, or ground water under the direct influence of surface water. The Rule build upon treatment techniques requirements of the Surface Water Treatment Rule.			
Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (IESWTR/LT1) MINOR	10/01/2016	10/13/2016	We failed to complete all the required .tests of our drinking water for the contaminants and period indicated.
MONITORING, ROUTINE (IESWTR/LT1) MINOR	11/01/2016	11/30/2016	We failed to complete all the required .tests of our drinking water for the contaminants and period indicated.

UNREGULATED CONTAMINANTS 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	Collection Date	Likely Source of Contaminants
Chromium	100	100	0.3	0.2 — 0.3	ppb	Chicago	2014	Naturally occurring element; used in making steel and other alloys
Molybdenum	N/A	N/A	1.1	1.0 — 1.1	ppb	Chicago	2014	Naturally occurring element found in ores and present in plants animals and bacteria;
Strontium	N/A	N/A	120	110 — 120	ppb	Chicago	2014	Naturally occurring element; has been used in cathode-ray tube TVs to block x-ray emissions
Vanadium	N/A	N/A	0.3	ND — 0.3	ppb	Chicago	2014	Naturally occurring metal; vanadium pentoxide is used a catalyst
Chromium—6	N/A	N/A	0.22	0.18 — 0.22	ppb	Chicago	2014	Naturally occurring element; used in making steel and alloys