

**CONSUMER CONFIDENCE REPORT**  
**Public Water Supply**  
**For The Monitoring Year 2012**



**THE CITY OF**  
**BERWYN, ILLINOIS**

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6700 West 26<sup>th</sup> Street • Berwyn • Illinois • 60402-0701

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**ROBERT J. LOVERO**  
**MAYOR**

**ROBERT SCHILLER**  
Director of Public Works  
One Public Works Drive  
Berwyn, Illinois 60402

June, 2013

Dear Berwyn Water Customer:

The Consumer Confidence Report (CCR) rule requires all community water systems to provide reports to their customers on the quality of their drinking water. The City of Berwyn, in conjunction with the City of Chicago and Illinois Environmental Protection Agency (IEPA), is providing the required information pertaining to source water monitoring for the period January 2012 through December 2012.

The City of Berwyn has provided water that meets all the requirements of the United States Environmental Protection Agency and the Illinois Environmental Protection Agency (IEPA) drinking water standards. The following reports are being provided to help you better understand the quality of the water you consume and use on a daily basis. Consumers with medical conditions may use the water quality analysis provided, or request a City of Chicago complete water analysis, to consult with their family doctors. Others may learn ways to better protect their children from the effects of lead in our environment, or how to conserve water in our daily lives. A well-informed consumer is the best ally the City has in providing clean, safe water to its customers.

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 regularly 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 City Hall. To view a summary version of the completed Source Water Assessments; including, Importance of Source Water; Susceptibility of Contamination Determination, and documentation / recommendation of Source Water Protection Efforts, you may access the Illinois EPA 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 Robert Schiller, Director of Public Works, at (708) 749-4700.

Sincerely,

**CITY OF BERWYN**

*Robert Schiller*

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Robert Schiller

Director of Public Works

## **Water Supply:**

The City of Berwyn purchased approximately 2.09 billion gallons of Chicago water through a City of Berwyn 24" supply main connected directly to the City of Chicago's supply grid. This connection provides all the water required by the City's local and retail customers. This water is received into a series of reservoirs and pumping stations, and then pumped to the City's local and retail customer base. The water is sampled and chlorinated as required to maintain the quality as delivered by the City of Chicago.

## **Water Quality:**

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. Throughout history, there have been extraordinary steps taken to assure a safe source of drinking water in the Chicagoland area. From the building of the offshore cribs and the introduction of interceptor sewers to the lock-and-dam system of Chicago's waterways and the City's Lakefront Zoning Ordinance. The City now looks to the recently created Department of the Water Management, Department of Environment and the MWRDGC to assure the safety of the city's water supply. Also, water supply officials from Chicago are active members of the West Shore Water Producers Association. Coordination of water quality situations (i.e., spills, tanker leaks, exotic species, etc.) and general lake conditions are frequently discussed during the association's quarterly meetings. Also, Lake Michigan has a variety of organizations and associations that are currently working to either maintain or improve water quality.

Finally, one of the best ways to ensure a safe source of drinking water is to develop a program designed to protect the source water against potential contamination on the local level. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. 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.

## **City Testing:**

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, sixty (60) bacteriological samples are taken. On a quarterly 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. A copy of the IEPA Water Quality Report for Berwyn is included later in this report.

## **Violations:**

The testing of the City of Berwyn's water supply produced three violations for their facilities during the calendar year 2012.

## **Educational Information:**

- 1) 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 (1-800-426-4791).
- 2) In order to ensure 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.
- 3) 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 (1-800-426-4791).
- 4) 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. City of Berwyn 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.
- 5) 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.

6) The following lawn care recommendations are supplied by the University of Minnesota:

- Water deeply and infrequently. One inch of water per week is ideal.
- Over-watering wastes your money and also removes plant nutrients from the soil.
- Excess watering can cause disease problems in your lawn.

### **Sources of Contamination:**

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.

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 byproducts of industrial processes and petroleum production, and can 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, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

### **Additional Information:**

For more information, contact the Water Department Superintendent of the City of Berwyn at (708) 749-4700. 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.

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

## Berwyn Regulated Contaminants Detected in 2012 (collected in 2012 unless noted)

### Lead and Copper

**Definitions:**

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

**Action Level Goal (AGL):** The level of a contaminant in drinking water below, which there is no known or expected risk to health. AGL's allow for a

Lead & Copper	MCLG	Action Level	Lead 90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contaminant
Copper	1.3	1.3	<0.10	0	ppm	NO	Corrosion of household plumbing systems; Leaching from wood preservatives; Erosion of natural deposits. 12/31/2005
Lead	0	15	23.7	6	ppb	NO	Corrosion of household plumbing systems; Erosion of natural deposits. Collection Date: 09/29/2011

### Water Quality Test Results

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal 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. MCLG's allow for a margin of safety.

**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. MRDLG's allow for a margin of safety.

**Definitions:** The following tables contain scientific terms and measures, some of which may require explanation.

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

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

**na:** not applicable.

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

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contaminant
0	5% of monthly samples are positive.	6.4		0	Y	Naturally present in the environment.

Regulated Disinfectants & Disinfection By-Products	Highest Level	Range of Levels	Units	MCLG	MCL	Violation	Likely Source of Contaminants
Chlorine	0.8	0.5917—0.9333	ppm	MRDLG =4	MRDL =4	NO	Water additive used to control microbes. Collection Date: 12/31/2012
Total Haloacetic Acids (HAA5)	14	8.16—29.3	ppb	No goal for the total	60	NO	By-Product of drinking water disinfection.
TTHM's (Total Trihalomethanes)	29	15.73-51.4	ppb	No goal for the total	80	NO	By-Product of drinking water disinfection.

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.

#### 2012 Violation Summary Table:

Rule or Contaminant	Violation Type	Violation Duration
City of Berwyn	Lead Consumer Notice (LCR)	01/02/2012 — 01/24/2012
Health Effects:	We failed to provide the results of lead tap water monitoring to the consumers at the location water was tested. These were supposed to be provided no later than 30 days after learning the results. There are no health effects at this time.	
Rule or Contaminant	Violation Type	Violation Duration
City of Berwyn	Public Notice Rule Linked to Violation	11/16/2012 — 1/29/2013
Health Effects:	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations. There are no health effects at this time.	
Rule or Contaminant	Violation Type	Violation Duration
City of Berwyn	MCL (TCR), Monthly	09/01/2012 — 09/30/2012
Health Effects:	Total coliform bacteria were found in our drinking water during the period indicated in enough samples to violate a standard. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.	

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### Tests Showed the Presence of Coliform Bacteria in City of Berwyn Water

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We routinely monitor for drinking water contaminants. We took 40 samples to test for the presence of coliform bacteria during September. 6 of our samples showed that the Maximum Contaminant Level "MCL" coliform bacteria was confirmed. The standard is that no more than 1 sample per month can contain this indicator bacteria.

#### What should I do?

- **You do not need to boil your water or take other corrective actions.** However, if you have specific health concerns, consult your doctor.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from USEPA's Safe Drinking Water Hotline at 1 (800) 426-4791.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. Coliform bacteria are generally not harmful themselves. *Coliforms are bacteria, which are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.*

Usually, coliforms are a sign that there could be a problem with the system's treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. **We did not find any of these bacteria in our subsequent testing, and further testing shows that this problem has been resolved.**

#### What Happens? What is being done?

Continual monitoring and testing has been on-going. All tests since then have not indicated the presence of coliform bacteria.

For more information, please contact Vincent A. Comella at (708) 788-1514 or City of Berwyn 6700 26<sup>th</sup> Street Berwyn, Illinois 60402.

This notice is being sent to by the City of Berwyn Water Department:

Water System ID# IL0310210 Date of Distribution 01/29/2013



# Chicago Regulated Contaminants Detected in 2012 (collected in 2012 unless noted)

## Microbial Contaminants

Regulated	Highest No. of Positive	Total No. of Positive Samples	MCLG	MCL Total Coliform	Violation	Likely Source of Contaminants
Total Coliform Bacteria (% Pos/mo)	0.4	0	0	5%	NO	Naturally present in the environment.

## Lead and Copper

### Definitions:

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

**Action Level Goal (AGL):** The level of a contaminant in drinking water below, which there is no known or expected risk to health. AGL's allow for a margin of safety.

Lead & Copper	Action Level	MCLG	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contaminant
Copper	1.3	1.3	0.046	0	ppm	NO	Corrosion of household plumbing systems; Leaching from wood preservatives; Erosion of natural deposits.
Lead	15	0	6.6	1	ppb	NO	Corrosion of household plumbing systems; Erosion of natural deposits.

### Water Quality Test Results

**Definitions:** The following tables contain scientific terms and measures, some of which may require explanation.

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the Maximum Contaminant Level Goal 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. MCLG's allow for a margin of safety.

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

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

**na:** not applicable.

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

## Chicago Regulated Contaminants Detected in 2012 (Continued)

**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. MRDLG's allow for a margin of safety.

Regulated	Highest Level	Range of Levels	Unit of Measurement	MCLG	MCL	Violation	Likely Sources of Contaminants
<b>Disinfectants &amp; Disinfection By-Products</b>							
Chlorine	0.8	0.7505— 0.8543	ppm	MRDLG = 4	MRDL = 4	NO	Water additive to control microbes. Collection Date: 12/31/2012
Total Haloacetic Acids (HAA5)	10	4.8—14.5	ppb	No goal for total	60	NO	By-Product of drinking water disinfection.
TTHM's (Total Trihalomethanes)	20	9.6—32.8	ppb	No goal for total	80	NO	By-Product of drinking water disinfection.
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.							
<b>Inorganic Contaminants</b>							
Arsenic	1	0.524— 0.672	ppb	0	10	NO	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	0.0204	0.0194— 0.0204	ppm	2	2	NO	Discharge of drilling wastes; Discharge from refineries; Erosion of natural deposits.
Fluoride	0.9	0.837— 0.852	ppm	4	4.0	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from Fertilizer and aluminum factories.
Nitrate (As N)	0.343	0.34— 0.343	ppm	10	10	NO	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	7	6.9—7.0	ppm	NA	NA	NA	Erosion of natural occurring deposits; used in water softener regeneration.

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

### Radio Active & Synthetic Organic Contaminants

Regulated	Highest Level	Range of Levels	Unit of Measurement	MCLG	MCL	Violation	Likely Sources of Contaminants
Combined Radium 226/228	1.38	1.3-1.38	pCi/L	0	5	NO	Erosion of natural deposits. Collection Date: 03/17/2008
Gross Alpha excluding radon & uranium	0.88	0.09-0.88	pCi/L	0	15	NO	Erosion of natural deposits. Collection Date: 03/17/2008

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

**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.**

Turbidity	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest Single Measurement	1.0 NTU	0.69 NTU	NO	Soil Runoff.
Lowest Monthly % meeting limit	0.3 NTU	99.74%	NO	Soil Runoff.

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA. The Chicago water system was required to monitor for the contaminants required under the Unregulated Contaminant Monitoring Rule (UCMR).

### 2012 Violation Summary Table:

Rule or Contaminant	Violation Type	Violation Duration
City of Chicago	Minor Routine Monitoring	09/01/2012-09/30/2012 10/01/2012-10/31/2012
Health Effects:	We failed to complete all the required tests of 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.	