

**2016 CITY OF NORTHLAKE
CONSUMER CONFIDENCE ANNUAL WATER QUALITY
REPORT
PWSID # 0314710**

For the period of January 1, 2016 to December 31, 2016

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien. ("This report contains very important information. Translate it, or speak with someone who understands it.")

The City of Northlake has been providing clean water to our community since 1949, helping to keep you and your family healthy. We take this mission very seriously. As shown in this annual report covering the year 2016, the water we delivered surpassed the strict regulations of the State of Illinois and the U.S. Environmental Protection Agency (EPA). We are dedicated to providing the highest quality of drinking water to our customers in the most reliable and professional manner. Our goal is to achieve complete consumer confidence in our drinking water supply by maintaining a premier water system and open communication with our customers. This report complies with a new federal law that requires all municipalities to provide water quality information on health issues and regulations for drinking water. For more information about your drinking water, opportunities to get involved, or to receive a paper copy of this report please contact **Anthony Faciano** by calling **(708) 562-0940** or by writing to this address: 55 E. North Ave., Northlake, IL 60164. Also, you are welcome and encouraged to attend public meetings on the first and third Monday of each month at 7:00 p.m. at City Hall. Our web site is **www.northlakecity.com**

OUR WATER BOARD MEMBERS

**Mayor
Jeffrey T. Sherwin**

Alderman

Ward 1

**Paul Straube
Penny Feldmann**

Ward 2

**Jaime S. Contreras
Thomas Padilla**

Ward 3

**Edward Gonzalez
Mark Werba**

Ward 4

**Rich Grochowski
Francine Patti**

SOURCE WATER ASSESSMENT

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel free to attend any of our regularly scheduled meetings listed above. The source water assessment for our supply has been completed by the Illinois EPA. 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>.

What you should know!

- φ 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 can dissolve naturally occurring minerals and radioactive materials, and pick up substances resulting from the presence of animals or human activity.

SOURCE OF WATER --CHICAGO

The source of drinking water used by The City Of Northlake is Purchased Surface Water from the City of Chicago.

Source of Water:- 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.

Contaminants that may be present in source water include:

Substances that may be present in source water include: biological contaminants, such as viruses and bacteria; inorganic contaminants, such as salts and metals; pesticides and herbicides; organic chemicals from industrial or petroleum use; and natural or man-made radioactive materials.

- 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 may 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 may also come from gas stations, urban storm water runoff and septic systems; and
- Radioactive contaminants, which may be naturally occurring or be the result of oil and gas production and mining activities.

Educational Information:

- φ Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants, but their presence 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).
- φ In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain substances in water provided by public systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection of public health.
- φ 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 infection. 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).

φ 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. We 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 your 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>

φ **If there were a problem with water contaminant, who would notify me?**

If contaminant levels were to exceed the M.C.L for safe use, the City of Northlake Department of Public Works will notify you, the newspaper, TV and radio announcements. Also, the City's Emergency Services/Public Safety would patrol the streets of City of Northlake instructing you of what appropriate action you can use to protect your family's health. These actions might include boiling the water for a particular period of time.

DEFINITION OF TERMS: The following tables contain scientific terms and measures, some of which may require explanation

Avg: Regulatory compliance with some MCLs 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.

Mrem: millirems per year (a measure of radiation absorbed by the body)

Maximum Contaminant 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.

90th Percentile: 90% of samples are equal to or less than the number in the chart.

NA: Not applicable. **ND:** Not detectable at testing limits.

PPB : micrograms per liter or parts per billion-or one ounce in 7,350,000 gallons of water

PPM : milligrams per liter or parts per million – 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.

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

Level Detected: 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 Detected: This column represents a range of individual sample results from lowest to highest that were collected during the CCR calendar year.

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 disinfectants to control microbial contaminants.

Maximum Residual Disinfectant Level (MRDL): The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in 2016.

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 this column, monitoring for this contaminant was conducted during the Consumer Confidence Report year.

CITY OF NORTHLAKE

2016 Regulated Contaminants Detected

LEAD AND COPPER

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contaminant
Lead	8/21/2014	0	15	6	1	ppb	N	Corrosion of household plumbing systems: Erosion of natural deposits.

REGULATED CONTAMINANTS

Disinfectants and Disinfections By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Chlorine	12/31/2016	0.7	0.6 – 0.7	MRDLG=4	MRDL=4	ppm	N	Water additive used to control microbes
Haloacetic Acids (HAA5)*	2016	17	9.69 – 19.78	No goal for the total	60	ppb	N	By-product of drinking water disinfection.

Total Trihalomethanes (TThm)*	2016	38	20.79 – 46	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
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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 may occur in the future.

Water Quality Data Table Footnotes

Turbidity

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

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.

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/l 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.

The City of Northlake parent supply is the City of Chicago, Melrose Park via Union Pacific Railroad

The City of Chicago Water Department provides the water treatment necessary to safeguard the water delivered to Melrose Park via Union Pacific Railroad then to the City of Northlake. Water is taken from Lake Michigan at several water inlets located about 3 miles from shore. Chlorine is then injected into the water for disinfection. The water then flows through series of settling and filtration basins where small amounts of polymer and sediments chemicals are added. After this process the water is filtered to remove the sediment. At this point the water is filtered through layers of fine charcoal and silicate sand. Small particles are removed and pure clean water appears and is ready to be re-chlorinated as a safeguard and precaution against any microorganisms.

IL0314710 - City of Northlake 2016 Violation Summary Table

Consumer Confidence Rule

The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.

Violation Type	Violation Begin/End	Violation Explanation
CCR ADEQUACY/AVAILABILITY/CONTENT	BEGIN 07/01/2016 END 2016	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.

IL0311860 - Village of Melrose Park 2016 Violation Summary Table

There were no violations in monitoring or sampling during the 2016 period for the Village of Melrose Park.

IL0316000 – City of Chicago 2016 Violation Summary Table

There were no violations in monitoring or sampling during the 2016 period for the City of Chicago

Water Conservation Tips

Water conservation measures are an important first step in protection our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water and sewer bill. Here are a few suggestions.

Conservation measures you can use inside your home include

1. Fix leaking faucets, pipes, toilets, etc.
2. Replace old fixtures; install water-saving devices in faucets, toilets and appliances.
3. Wash only full loads of laundry.
4. Do not use toilet for trash disposal.
5. Take shorter showers.
6. Do not let water run while shaving or brushing teeth.
7. Soak dishes before washing.
8. Run the dishwasher only when full.

Conservation measures you can use outdoor

1. Water the lawn and garden in the early morning or evening.
2. Use mulch around plants and shrubs.
3. Repair leaks in faucets and hoses.
4. Use water-saving nozzles.

Use water from a bucket to wash your car, and save the hose for rinsing.

2016 Water Quality Data

DATA TABULATED BY CHICAGO DEPARTMENT OF WATER MANAGEMENT
0316000 CHICAGO

DEFINITION OF TERMS

Maximum Contaminant Level Goal (MCLG): <i>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.</i>
Maximum Contaminant Level (MCL): <i>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.</i>
Highest Level Detected: <i>This column represents the highest single sample reading of a contaminant of all the samples collected in 2016.</i>
Range of Detections: <i>This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.</i>
Date of Sample: <i>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.</i>
Treatment Technique (TT): <i>A required process intended to reduce the level of a contaminant in drinking water.</i>
N/A: <i>Not applicable</i>

DETECTED CONTAMINANTS

Contaminant (unit of measurement) <i>Typical source of Contaminant</i>	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
Turbidity Data						
Turbidity (NTU/Lowest Monthly % ≤0.3 NTU) <i>Soil runoff</i>	N/A	TT(Limit 0.3 NTU)	Lowest Monthly %: 100%	100% - 100%		
Turbidity (NTU/Highest Single Measurement) <i>Soil runoff</i>	N/A	TT(Limit 1 NTU)	0.16	N/A		
Inorganic Contaminants						
Barium (ppm) <i>Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits</i>	2	2	0.0206	0.0196 – 0.0206		
Nitrate (as Nitrogen) (ppm) <i>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</i>	10	10	0.46	0.40 – 0.46		
Total Nitrate & Nitrite (as Nitrogen) (ppm) <i>Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits</i>	10	10	0.46	0.40 – 0.46		
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) <i>Erosion of naturally occurring deposits</i>	N/A	N/A	25.7	25.0 – 25.7		
Sodium (ppm) <i>Erosion of naturally occurring deposits; Used as water softener</i>	N/A	N/A	8.92	8.49 – 8.92		
State Regulated Contaminants						
Fluoride (ppm) <i>Water additive which promotes strong teeth</i>	4	4	0.78	0.62 – 0.78		
Radioactive Contaminants						
Combined Radium (226/228) (pCi/L) <i>Decay of natural and man-made deposits.</i>	0	5	0.84	0.50 – 0.84		02-11-2014
Gross Alpha excluding radon and uranium (pCi/L) <i>Decay of natural and man-made deposits.</i>	0	15	6.6	6.1 – 6.6		02-11-2014

Units of Measurement

ppm: Parts per million, or milligrams per liter

ppb: Parts per billion, or micrograms per liter

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

%≤0.3 NTU: Percent of samples less than or equal to 0.3 NTU

pCi/L: Picocuries per liter, used to measure radioactivity

TURBIDITY

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

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.

FLUORIDE

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.7 mg/L with a range of 0.6 mg/L to 0.8 mg/L.

SODIUM

There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

SOURCE WATER ASSESSMENT SUMMARY

Source Water Location

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 third largest by area.

Source Water Assessment Summary

The Illinois EPA implemented a Source Water Assessment Program (SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination and determined the susceptibility of the source water to contamination. The Illinois EPA has completed the Source Water Assessment Program for our 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 of 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.

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.

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 have 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 months 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, CDWM 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. Please address any questions or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below:

http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emergincontaminantstudy.html

For more information, please contact
Alan Stark, Deputy Commissioner for the Bureau of Water Supply
At 312-742-7499

Chicago Department of Water Management
Bureau of Water Supply
1000 East Ohio Street
Chicago, IL 60611
Attn: Alan Stark

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by:
The City of Chicago
Department of Water Management
Water System ID# IL0316000