



City of Palos Hills – IL0312400

Consumer Confidence Report Annual Drinking Water Quality Report

Annual Water Quality Report for the period of January 1 to December 31, 2014

This report is intended to provide you with important information about your drinking water and the efforts made by the City of Palos Hills water system to provide safe drinking water. The source of drinking water used by PALOS HILLS is Purchased Surface Water. For more information regarding this report contact: Commissioner of Public Work Dave Weakley at 708-598-3400 ext. 1111

We want our 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 City Council meetings held on the first and third Thursday of every month at 7:00pm.

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

Source of Drinking Water: 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.

The City of Palos Hills received its water from the Village of Oak Lawn IL0312220. Oak Lawn receives its water from the City of Chicago. Source water for the City of Chicago is surface water from Lake Michigan.

Source Water Assessment: 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 or call our water operator at 708-598-3400 ext.1111. 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>.

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: 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.

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, 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).

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 EPA and City of Palos Hills 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 at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

2014 ANNUAL DRINKING WATER QUALITY REPORT

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 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. MCLG's allow for a margin of safety

Maximum Residual Disinfectant Level or 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 or MRDLG: The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in 2009.

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 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. ALGs allow for a margin of safety.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water. **ppm:** milligrams per liter or parts per million - or one ounce in 7,350 gallons of water. **ppb:** micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water. **NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water. **pCi/l:** Picocuries per liter, used to measure radioactivity. **% ≤ 0.3 NTU:** Percent samples less than 0.3 NTU.

nd: Not detected at testing limit. **na:** not applicable. **Av:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

City of Palos Hills - 2014 Regulated Contaminates Detected

Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Total Trihalomethanes (TTHm)	2014	46	22.47-61.6	No goal for the total	80	ppb	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)*	2014	14	5.62 -18.63	No goal for the total	60	ppb	No	By-product of drinking water chlorination
Chlorine	12/31/2014	0.5	0.5- 0.6	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Coliform Bacteria Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of positive	Fecal coliform or E. Coli Maximum Contaminant Level		Total No. of Positive E.Coli or Fecal Coliform Samples		Violations	Likely Source of Contamination
0	1 positive monthly sample	1	Naturally present in the environment - null		0		No	Naturally present in the environment
Lead and Copper	Date sampled	MCLG	Action Level (AL)	90 th Percentile	# of sites over AL	Units	Violation	Likely Source of Contamination
Lead	06/07/11	0	15	0	1	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits

* 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.

0316000 City of Chicago Parent Supply 2014 Water Quality Data Detected Contaminants -Tabulated by Chicago Department of Water Management

Inorganic Contaminants							
Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violation	Likely Source Of Contaminant
Barium	0.0227	0.0223- 0.0227	ppm	2	2		Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Total Nitrate- Nitrite (as nitrogen)	0.31	0.30 - 0.31	ppm	10	10		Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate (As Nitrogen)	0.31	0.30 - 0.31	ppm	10	10		Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits
Total Organic Carbon (TOC)	The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.						
State Regulated Contaminates Fluoride	0.98	0.94 - 0.98	ppm	4	4		Water additive which promotes strong teeth.
Fluoride: Fluoride is added to the water to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9mg/l to 1.2mg/l							

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 contaminations in drinking water, and whether future regulation is warranted.

Sulfate	35.5	20.9 - 35.5	ppm	NA	n/a		Erosion of naturally occurring deposits
Sodium	10.0	9.53 - 10.00	ppm	NA	n/a		Erosion of naturally occurring deposits; used as water softeners
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.							

Turbidity is a measurement 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.

Turbidity (NTU/Lowest Monthly %≤0.3 NTU)	(Lowest Monthly %) 100.0%	100.0% - 100.0%	%	NA	TT (95%≤ 0.3 NTU)		Soil Runoff
Turbidity (NTU Highest Single Measurement)	0.11	NA	NTU	NA	TT (1NTU max)		Soil Runoff

Radioactive Contaminants

Gross Alpha excluding radon & uranium(pCi/L)	6.6	6.1 - 6.6	pCi/l	0	15		Decay of natural and man-made deposits
Combined Radium 226/228 (pCi/l)	0.84	.50 - 0.84	pCi/l	0	5		Decay of natural and man-made deposits

0316000 City of Chicago Parent Supply 2014 Water Quality Data

Continued

UCMR3 Compliance Reporting	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. The monitoring results were reported to the EPA. The list of UCMR3 contaminants that we have monitored included volatile organic chemicals, metals, prefluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below:						
Contaminants	Highest Level Detected	Range of Level Detected	Unit of Measurement	MCLG	MCL	Violations	Typical Source of Contaminant
Chromium	0.3	0.2 - 0.3	ppb	100	100		Naturally-occurring element; used in steel and other alloys
Molybdenum	1.1	1.0 - 1.1	ppb	NA	NA		Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide
Strontium	120	110 - 120	ppb	NA	NA		Naturally-occurring element; has been used in cathode-ray tubes TV to block x-ray emissions
Vanadium	0.3	ND- 0.3	ppb	NA	NA		Naturally-occurring element; vanadium pentoxide is used as a catalyst and a chemical intermediate
Chromium-6 or Hexavalent Chromium	.22	0.18-0.22	ppb	NA	NA		Naturally-occurring metal; used in making steel and alloys
4-androstene-3,17dione	0.0008	0.0006 - 0.0008	ppb	NA	NA		Steroidal hormone naturally produced in the human body; and used as an anabolic steroid and a dietary supplement
Testosterone	0.0001	0.0001 - 0.0001	ppb	NA	NA		Androgenic steroid naturally produced in the human body; and used in pharmaceuticals

City of Chicago, Department of Water Management Source Water Assessment Summary for the 2014 Consumers Confidence Report (CCR)

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 area of the City and suburbs, while the South Water Purification Plant serves the southern area 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 the third largest Great lake 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

This 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.

2014 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 drinking water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced.

In 2014, 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 question 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 website which can be accessed at the following address below:

http://www.cityofchicago.org/city/supp_info/water_quality_resultsandreports/city_of_Chicago_emergincontaminantstudy.html

2014 City of Chicago Violation Summary Table

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were reported during 2014

What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern to all public water supplies.

A cross connection is formed where the water system of your home or business is connected to any equipment or point of use device. Boiler heating systems, air conditioning systems, fire sprinkler systems, lawn irrigation systems, autoclaves, and private wells are just a few of the many sources of cross connections that requires a back flow prevention device.

Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water system. This is called backpressure. Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences like water main breaks, heavy water demand and fire hydrant usage. During these occurrences contaminants can be drawn out from the equipment and into the drinking water line. This is called siphonage.

Outside water faucets and garden hoses tend to be the most common sources of cross-connection contamination at home. A garden hose creates a hazard when submerged in a swimming pool or when attached to a point of use chemical sprayer for weed killing/fertilizing and insect control. Garden hoses that are left lying on the ground may be contaminated by fertilizers or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We seek out and inspect homes and businesses in our service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow prevention device. The EPA requires all testable back flow prevention devices be tested annually to make sure the back flow prevention device provides maximum protection to the water supply.

For more information, review the Cross-Connection Control Manual from the U.S. EPA's Web site at <http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm>.

You can also call the Safe Drinking Water Hotline at (800) 426-4791.

City of Palos Hills Summer Water Conservation Policy

Water is a precious natural resource.
Thank you for using it wisely.

Water conservation benefits all of us and helps prevent water shortages. To maintain a safe water supply for health, fire protection and environmental purposes, the City of Palos Hills is requesting residents to conserve water during the summer months.

Between May 15th to September 15th
Outside water use is allowed as follows:

7:00am to 11:00am and 7:00pm to 11:00pm

Water every other day using the odd / even address system based on the last digit of your address

Should dry weather conditions mandate implementation of more restrictive conservation measures residents will be notified using signage placed on major intersections throughout the City.

Mail Box Maintenance

Summertime is a great time to check your mailbox and post for maintenance. A poorly maintained mail box or post will not stand up against the weight of snow from a snow plow. Check the condition of the post for weed whip damage, dry rot and decay. Remember to display your address on your mailbox and home.