



# 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, 2013

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 four Thursdays of every month.

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 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 x1111. 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 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>.

## 2013 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 (MCLG) 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 - 2013 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)	2013	44	20.51 – 68	No goal for the total	80	ppb	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAA5)*	2013	11	4.7 – 15	No goal for the total	60	ppb	No	By-product of drinking water chlorination
Chlorine	12/31/2013	0.5	0.5– 0.62	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
<b>Coliform Bacteria</b> 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
<b>Lead and Copper</b>	Date sampled	MCLG	Action Level (AL)	90 <sup>th</sup> 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 2012 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 (ppm)	0.0205	0.0204-0.0205	ppm	2	2		Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Arsenic (ppb)	0.77	0.519-0.767	ppb	0	10		Erosion of natural deposits; runoff from orchards; Runoff from glass and electronics production and waste
Selenium (ppb)	2.48	ND – 2.48	ppb	50	50		Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Total Nitrate- Nitrite (as nitrogen) (ppm)	0.362	0.351 – 0.362	ppm	10	10		Runoff from fertilizer; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrate (As Nitrogen) (ppm)	0.362	0.351-0.362	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 (ppm)	0.90	0.856 – 0.922	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	11.9	ND – 11.9	ppm	n/a	n/a		Erosion of naturally occurring deposits
Sodium	7.84	7.42 – 7.84	ppm	n/a	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%	%	n/a	TT (95%≤ 0.3 NTU)		Soil Runoff
Turbidity (NTU Highest Single Measurement)	0.18	n/a	NTU	n/a	TT (1NTU max)		Soil Runoff

## Radioactive Contaminants

Gross Alpha excluding radon & uranium(pCi/L)	0.88	0.090 – 0.880	pCi/l	0	15		Decay of natural and man-made deposits Sample Date 03/17/2008
Combined Radium 226/228 (pCi/l)	1.38	1.300 – 1.380	pCi/l	0	5		Decay of natural and man-made deposits Sample Date 03/17/2008

## 2013 City of Chicago Violation Summary Table

Contaminant or Program	Violation Type	Monitoring Period Start Date – Stop Date	Violation Explanation
Individual Filter Effluent Turbidity Monitoring	Minor Routine Monitoring (ISWTR/LT1)	09/01/2012 – 09/30/2012 10/01/2012 – 10/31/2012	Chicago failed to complete all the required tests of their drinking water for the contaminant and period indicated.

Health Effects (if applicable)	None
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Action taken: The Chicago Department of Water Management has installed a new low level turbidity detection alarm program in the electronic turbidity system and provided corrective action training to staff. This will ensure continuous filter effluent turbidity monitoring without interruption.

