



# Village of Palos Park Annual Drinking Water Quality Report

## for Lake Michigan Water during the period of January 1 - December 31, 2008

This year, as in past years, your tap water met all the United States Environmental Protection Agency (USEPA) and state drinking water health standards. Our system is rigorously protected against any infiltration of groundwater, and we are able to report that the Utilities Division had no violation of a contaminant level or of any failure of other water quality standards in the previous year. This report summarizes the quality of water that we provided through 2008, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with this information as knowledgeable customers prove to be the Village's best advocates.

The City of Chicago's Water Department treats Lake Michigan water at a water treatment plant in Chicago. After the water is treated, it is pumped to the Village of Oak Lawn's water system. From there the Village of Oak Lawn re-treats the water with chlorine and then pumps the treated water to the Palos Park Pumping Station and underground reservoir. The Village of Oak Lawn's Drinking Water Quality Report is available at [www.oaklawn-il.gov/FeatureDocs/2008-Water-Quality-Report.aspx](http://www.oaklawn-il.gov/FeatureDocs/2008-Water-Quality-Report.aspx). After additional chlorine treatment by Palos Park including disinfection and testing, the water is finally pumped to our customers. The treated water supplied to the residents of Palos Park is entirely Lake Michigan water and is not supplemented with any other surface or ground water.

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).

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. Immunocompromised 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/Center for Disease Control (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).

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 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.

**Source Water Assessment**

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 Chicago land 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 Department of Water Management, Department of Environment and the Metropolitan Water Reclamation District of Greater Chicago (MWRDGC) to assure the safety of the city's water supply. In addition, 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. Quarterly meeting dates can be found at [www.wswpa.org](http://www.wswpa.org). 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. 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 City of Chicago's 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 the Village's Source Water Assessment including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protections Efforts, you may access the Illinois EPA website at (<http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>).

In addition to the informal section of the Water Quality Report, we have included several tables for your review. These tables will provide a picture of the contaminants that were detected in your water, and the contaminants that were tested for, but not found to be present.

The Village of Palos Park would like to invite you to call Rachael Kaplan, Public Works Director, 671-3720 or Daniel Foster, Utilities Supervisor, 671-3722 with any questions you might have regarding this report. One of the main goals of the Utilities Division is to keep our valued customers informed about their water quality.

Sincerely,

**Dan Foster**

Dan Foster, Utilities Supervisor

**Palos Park Regulated Detected Contaminants**

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 Village of Palos Park is responsible for providing high quality drinking water, but cannot control the variety of material 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 water 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 or at (<http://www.epa.gov/safewater/lead>).

<u>Lead and Copper</u>	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	07/19/2006	1.3	1.3	.093	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	07/19/2006	0	15	1.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

The purpose of this table is to identify the highest level of each detected contaminant and the range of levels detected for that contaminant found during the 2008 reporting year.

**Palos Park Table of Detected Regulated Contaminants**

Disinfectants and Disinfections By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines		1.28	.23 - 1.28	MRDLG =4	MRDL= 4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)		14	5.2 - 16.5	No goal for the total	60	ppb	No	By-product of drinking water chlorination.
Total Trihalomethanes (TThm)		44	19.6 - 49	No goal for the total	80	ppb	No	By-product of drinking water chlorination.

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.

Coliform Bacteria	MCLG	Total Coliform MCL	Highest Number of Positive Samples	Fecal Coliform Or <i>E. coli</i> MCL	Total No. of Positive <i>E. coli</i> or Fecal Coliform Samples	Violation	Likely Source of Contamination
Coliform	0	5% of monthly samples are positive	0	0	0	No	n/a

**Chicago Department of Water Management-2008 Water Quality Data  
Detected Contaminants (Provided by City of Chicago)**

\*TTHMs and HAA5s are for the Chicago distribution system. Not all sample results were used for calculating the Highest Level Detected because some results include the IDSE study for future compliance that is included in the range of results. Initial Distribution System Evaluation Standard Monitoring Plan. Stage 2 DBPR promulgated on January, 2008.

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Range of detection	Violation	Date of Sample
<b><u>Microbial Contaminants</u></b>						
TOTAL COLIFORM Bacteria (% pos/mo) Human and animal fecal waste	0	5%	0.76% in Sept	n/a		
FECAL COLIFORM AND E. COLI (#pos/mo) Human and animal fecal waste	0	0	3	n/a		
TURBIDITY (%<0.3 NTU) Soil runoff, Lowest monthly percent meeting limit	n/a	TT	100.000%	n/a		
TURBIDITY (NTU) Soil runoff, Highest single measurement	n/a	TT=1NT max	0.14	n/a		
<b><u>Inorganic Contaminants</u></b>						
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0194	0.0191-0.0194		
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, Sewage; Erosion of natural deposits	10	10	0.320	0.304-0.320		
TOTAL NITRATE & NITRATE (ppm) Runoff from fertilizer use; Leaching from septic tanks, Sewage; Erosion of natural deposits	10	10	0.320	0.304-0.320		
<b><u>Disinfectants\Disinfection By-Products</u></b>						
TTHMs [TOTAL TRIHALOMETHANES] (ppb) By-product of drinking water disinfection	n/a	80	19.500*	9.100-29.600		
HAA5 [HALOACETIC ACIDS] (ppb)	n/a	60	9.000*	3.100-14.000		

**Chicago Department of Water Management-2008 Water Quality Data - continued**

TOC [TOTAL ORGANIC CARBON] The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements by IEPA.

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Range of detection	Violation	Date of Sample
CHLORINE (as C12)(ppm) Drinking water disinfectant	4.0	4.0	0.74	0.63-.074		
<b><u>Unregulated Contaminants</u></b>						
SULFATE (ppm) Erosion of naturally occurring deposits.	n/a	n/a	28.900	27.700-28.900		
<b><u>State Regulated Contaminants</u></b>						
FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	1.05	0.92-1.05		
SODIUM (PPM) Erosion of naturally occurring deposits; Used as water softener	n/a	n/a	8.85	8.13-8.85		
<b><u>Radioactive Contaminants</u></b>						
BETA/PHOTON EMITTERS (pCi/l) Decay of natural and man-made deposits.	0	5	1.38	1.300-1.380		
GROSS ALPH excluding radon and uranium Decay of natural and man-made deposits	0	15	0.88	0.090-0.880		

***City of Chicago Water Table Footnotes***

**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 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.

**Unit 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

%<0.5 NTU-Percent samples less than 0.5 NTU

pCi/l-Picocuries per liter, used to measure radioactivity

TT-Treatment Technique

N/A—Not Applicable

**Term Definitions for Palos Park and City of Chicago Annual Drinking Water Quality Report:**

**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 contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG's as feasible using the best available treatment technology.

**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 of disinfectants to control microbial contaminants.

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

**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.

**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.