

**2005 Village of Melrose Park  
RE: 0311860 Consumer Confidence  
Annual Water Quality Report  
January 1 to December 31, 2005**

This publication conforms to the new federal regulation under the Safe Drinking Water Act that requires water utilities to provide a detailed water quality report to each of their customers annually. The Village of Melrose Park must provide you with this information. The Village also believes that knowledgeable customers are the Village's best allies in support of improving high drinking water standard

If you have any questions relating to your water supply, and this report, please contact Mr. Mike Carpanzano, Water Superintendent (708-531-5360).

**SPANISH NOTICE**

Have a friend or relative translate this report to non-English speaking/reading resident.

The report outlines the processes involved in delivering to you the highest quality drinking water available.

1. Where does my water come from?
2. How is my water treated and purified?
3. How safe is my drinking water?

**Source Water** (mandatory)

Village of Melrose Park drinking water source.

Lake Michigan is the surface water supply used to provide drinking water for Chicago and 123 suburban communities. The Environmental Protection Agency (EPA) has found that the quality of Lake Michigan has improved dramatically over the past 21 years. Lake Michigan, by volume, is the second largest Great Lake and the only one located totally within the United States. It serves as a source of drinking water, as a place for swimming and fishing, and as a scenic wonderland. Sources of drinking water used for both tap water and bottled water can pick up contaminants as water travels over the surface of the land or through the ground. The drinking water source is vulnerable to industrial waste and runoff from surrounding lands. Potential sources of pollution such as pesticides, herbicides, radioactive materials, and organic and inorganic petroleum and gas production by-products can impact the source water. We do not have indications of the presence of these contaminants at this time, mainly because of restrictions, which prohibit industrial effluents from entering Lake Michigan; Sewage treatment plant effluents are not discharged into the lake, thereby reducing the threat of microbial contamination. All 63 miles of shoreline within Illinois are now considered to be in good condition. The Illinois EPA Office of Groundwater will be doing a source water assessment within the next three years. When completed, all sources of Pollutants into Lake Michigan will be identified and there will be information regarding the source water's susceptibility to contaminants based on the findings of the assessment. Since the quality of the raw water source is good, conventional treatment methods of disinfection, coagulation and sedimentation, and sand filtration are adequate for producing a water that is free of harmful contaminants.

## **How is My Water Treated and Purified?**

The City of Chicago Water Department provides the water treatment necessary to safeguard the water delivered to Melrose Park. 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 a series of settling and filtration basins where small amounts of polymer and sedimentation chemicals are added. After this process is complete, 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 is ready to be re-chlorinated as a safeguard and precaution against any microorganisms.

## **Voluntary testing (optional)**

The Chicago Water Department monitors for contaminants which are proposed to be regulated or for which no standards currently exist but which could provide useful information in assessing the quality of the source water or the drinking water.

Cryptosporidium – Analyses have been conducted monthly on the source water since April, 1993. Cryptosporidium has not been detected in these samples. Treatment processes have been optimized to ensure that if there are cryptosporidium cysts in the source water, they will be removed during the treatment process. By maintaining a low turbidity and thereby removing the particles from the water, the threat of cryptosporidium organisms getting into the drinking water system is greatly reduced.

Asbestos – Samples are examined for asbestos fibers in the source water and finished water on a routine basis. The EPA has determined that asbestos fibers greater than 10 microns in length could potentially cause lung cancer. We did not find fibers that are in this size category.

Taste and odor compounds – MIB and geosmin are monitored both in the source water and finished water. These analyses assist the personnel to determine the effectiveness of the treatment process as they strive to reduce these compounds and provide a drinking water without detectable tastes and odors.

The City of Chicago carefully monitors the chlorine, using just enough chlorine to protect its customers, without compromising taste. Lastly, fluoride is added to inhibit tooth decay. A corrosive inhibitor is added to protect the distribution system pipes.

The finished water is pumped into the City of Chicago supply system. The water there is pumped westerly by the city's Springfield Pumping Station through a 48"-36" supply line to the Village of Melrose Park's connection at Harlem and Wabansia.

Water is stored in the Village's 2 million gallon reservoir and again pumped by a booster station at 8300 North Avenue. The water travels through a 42" supply line to 2-4 million gallon reservoir at the 15<sup>th</sup> Avenue pumping station a 2 million gallon reservoir at the 23<sup>rd</sup> Avenue Main Pumping Station. At those points the water is pumped into the local water distribution lines. The Village of Melrose Park once again tests the water for chlorine levels, and adds the required chlorine to insure clean and safe water to its consumers.

### **Substance Expected in Drinking Water**

Under The Safe Drinking Water Act, S.D.W.A., the U.S.A. Environmental Protection Agency is responsible for establishing national limits for hundreds of substances in drinking water. The Act also specifies various treatments that water systems must use to remove these substances.

The Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of 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 USEPA's Safe Water Hotline (1-800-426-4791).

### ***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 Village of Melrose Park Department of Public Works will notify you with newspaper, TV and radio announcements. Also, the Village's Emergency Services/Public Safety would patrol the streets of Melrose Park 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.

### **Tabular Information**

This report includes tables of contaminants found in drinking water. The tables do not list contaminants that were not found in the Chicago and Melrose Park water supply. Any contaminants detected in Melrose Park's water were under maximum contaminants levels (M.C.L.) within the safe drinking water guidelines set by U.S. EPA and are not expected to cause any health risks. However, it is important for you to know exactly what was detected and how much of the substance was present in the water.

The Village of Melrose Park hopes this information helps make its water customers better informed on the water we use in our homes and businesses.

## **VIOLATION SUMMARY**

There were no violations in monitoring or sampling during the 2005 period for the Village of Melrose Park.

## 2005 Non-detected Contaminants

The following table includes contaminants monitored for, but not detected in the most recent sample. The CCR rule does not require that this information be reported; however, monitoring had indicated that these contaminants were not present in the water supply. In some cases, if a contaminant is not detected in a water supply, monitoring can be reduced to once every three or six years, however, the Village monitors every year.

### Data Tabulated By Chicago Department of Water Management

## 2005 Water Quality Data

*-Definition of Terms;*

**Maximum Contaminant Level 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.

**Level Found:** 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 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 systems must follow.

**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

## **Detected Contaminants**

<b>Contaminant(unit of measurement) Typical Source of Contaminant</b>	<b>MCLG</b>	<b>MCL</b>	<b>Level Found</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Date of Sample</b>
<b>MICROBIAL CONTAMINANTS</b>						
Turbidity (%<0.3 NTU) Soil runoff.Lowest monthly percent meeting limit.	n/a	TT	100.00%	n/a		
Turbidity (NTU) Soil runoff. Highest single measurement.	n/a	TT=1NTUmax	0.950	0.08 – 0.12		
<b>INORGANIC CONTAMINANTS</b>						
Barium (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.021	0.020 – 0.022		
Nitrate (As Nitrogen) (ppm) Runoff from fertilizer use; Leaching from septic tanks,sewage; Erosion of natural deposits.	100	100	5.6	nd – 5.6		
Nitrate & Nitrite (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.340	nd – 0.340		

<b><u>DISINFECTANTS/DISINFECTION BY-PRODUCTS</u></b>						
TTHMs (Total Trihalomethanes) (ppb) By-product of drinking water disinfection	n/a	80	16.100	10.000-22.500		
HAA5 (Halocetic Acids) (ppb) By-product of drinking water disinfection	n/a	60	8.350	5.500-10.700		
Chlorine (as C12) (ppm) Drinking water disinfectant	4.0	4.0	0.6961 Highest Value	0.6468-0.6961		
TOC (Total Organic Carbon) The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA						
<b><u>UNREGULATED CONTAMINANTS</u></b>						
Sulfate (ppm) Erosion of naturally occurring deposits	n/a	n/a	26.700	25,800-27.600		
<b><u>STATE REGULATED CONTAMINANTS</u></b>						
Fluoride (ppm) Water additive which promotes strong teeth.	4	4	0.959	0.920-1.03		
Sodium (ppm) Erosion of naturally occurring deposits; Used as water softener.	n/a	n/a	7.500 Highest Value	7.300-7.500		
<b><u>RADIOACTIVE CONTAMINANTS</u></b>						
Beta/Photon Emitters (pCi/l) Decay of natural and man-made deposits	0	50	2.000	Nd – 2.00		11/05/2001

### **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.*

## **Water Quality Data 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.

## WHAT'S IN MY WATER?

Each year, the Village analyzes hundreds of water samples for bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes, and synthetic organic contaminants. For your information, we have compiled a list in the table below showing what substances were detected in our drinking water.

### VILLAGE OF MELROSE PARK

Lead & Copper (Lead and Copper samples were collected from 30 area homes. None were found to exceed the Action Level. The 90<sup>th</sup> percentile values are shown.)

#### Regulated Contaminants Detected in 2005 (collected in 2005 unless noted)

Date Samped 7/20/2005

Lead MCLG	Lead Action	Lead 90th Percentile	# Sites Over	Copper MCLG	Copper Action	Copper 90th	# Sites Over Copper AL	Likely Source of Contaminant
0 ppb	15 ppb	4.9 ppb	0	1.3 ppm	1.3 ppm	0.121ppm	0	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 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:** milligrams per litre or parts per million - or one ounce in 7,350 gallons of water.

**ug/l:** 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 MCLs are based on running annual average of monthly samples.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water.

**Maximum Residual Disinfectant Level (MRDLG):** The level of disinfectant to drinking water below which there is no known or expected risk to health. MRDLG's allow for a margin of safety.

#### Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminants
Total Haloacetic Acids (HAAS)	7/14/05	34.01	13.59-34.01	N/A	80	ppb	No	By-product of drinking water chlorination
TTHMs (Total Trihalomethanes)	10/18/05	21.56	5.7-21.56	N/A	60	ppb	No	By-product of drinking water chlorination
Chlorine	2/28/05	0.7212	0.7068-0.7212	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes

\*MCL Statement: The maximum contaminant level (MCL) for TTHM and HAA5 is 80 ppm and 60 ppm respectively and is currently only applicable to surface water supplies that serve 10,000 or more people. These MCLs will become effective 01/01/2005 for all groundwater supplies and surface supplies serving less than 10,000 people. Until 01/01/2005, surface water supplies serving less than 10,000 people, any size water supply that purchase from a surface water source, and groundwater supplies serving more than 10,000 people must meet a state imposed TTHM MCL of 100 ppm. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their livers, kidneys, or central nervous systems, and may have increased risk of getting cancer.

**2005 Violation Summary Table:**

This table is intended to assist you in the identification of the year 2005 violation(s) that are required and explained in your CCR.

The table does NOT include the required explanation of the noted violation(s) and you will need to provide this information as Explained in the CCR Guidance Manual.

Rule or Contaminant	Violation Type	Violation Duration
None	None	None
Health Effects: Failure to issue a satisfactory Consumer Confidence Report. (CCR)		

**Water Conservation Tips**

Water conservation measures are an important first step in protecting 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 bills. Here are a few suggestions.

**Conservation measures you can use inside your home include:**

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

**You can conserve outdoors as well:**

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water-saving nozzles.
- Use water from a bucket to wash your car, and save the hose for rinsing.

**0316000 Chicago****2005 Violation Summary Table**

Violations	Start Date Jan 1,2005	End Date Dec.31,2005	Description
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No water quality violations were recorded for your facility during this CCR reporting period.

**Unit of Measurement – Definition**

*ppt – Parts per trillion, or nanograms per liter*

*ppm – Parts per million, or milligrams per liter*

*ppb – Parts per billion, or micrograms per liter*

*pCi/l – Picocuries per liter, used to measure radioactivity*

