

**Water Quality  
Report 2010**



**Village of Woodridge**

**Voluntary Testing**

The Chicago Department of Water Management 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. They are:

**Cryptosporidium** - Analyses for this contaminant 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 low turbidity and thereby removing the particles from the water, the possibility of cryptosporidium organisms getting into the drinking water system is greatly reduced.

Since the end of the official monitoring period in November 2008 of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), the City of Chicago has continued voluntary 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 of 2010. Treatment processes have been optimized to provide effective barriers for the 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.

**Taste and odor compounds** - MIB and geosmin are monitored both in the source water and finished water. The treatment process is adjusted to reduce these compounds and provide a drinking water without detectable tastes and odors.

**Additional Testing Methods** - The Department of Water Management for Chicago has added testing methods to those already performed to assess water quality. The objective of the additional testing is to detect changes in water quality in a timely manner. Protocol for screening water samples for toxicity from chemicals and also for screening water samples for the presence of endospores has been developed. Acute toxicity screening detects the presence of toxic chemicals and although the test does not identify individual compounds, it can be used as an early warning tool. The graph produced will clearly indicate toxicity in the sample and further investigation would be needed. Results thus far have not shown any positive results. Anthrax organisms belong to the group of bacteria which can produce endospores. If samples are positive for the presence of endospores, further identification can be done to determine which bacteria are present. Samples are tested to develop a historical record of results and database of information. No harmful bacteria have been identified.

**2010 Water Quality Data**

The following tables represent the results of sampling for various contaminants by both the Village of Woodridge and the City of Chicago. Each table reflects the sample results covering the period of January 1, 2010 through December 31, 2010. The tables for the Village are marked **Woodridge** and the results from the City of Chicago are marked **Chicago**. The definitions, abbreviations, and units of measurement will precede the tables to help you understand how much contaminant was detected.

**AL:** Action Level, or the concentration of a contaminant that, when exceeded, triggers treatment or other requirements a water system must follow.

**ALG:** Action Level Goal, or 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.

**Avg:** Regulatory compliance with some MCLs are based on running annual average of monthly samples.

**CCR:** Consumer Confidence Report (another name for the Water Quality Report)

**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 CCR calendar year..

**Level Found:** This column represents an average sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

**MCL:** Maximum Contaminant Level, or the highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG:** Maximum Contaminant Level Goal, or the level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL:** Maximum Residual Disinfectant Level, the highest level of disinfectant allowed in drinking water.

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

**n/a:** not applicable

**nd:** not detectable at testing limits

**Definitions and Abbreviations (continued):**

**Range of Detections:** Represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

**TT:** Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water.

**Units of Measurement**

- ppm:** - parts per million (also = to mg/l or milligrams per liter – or one ounce in 7,350 gallons of water)
- ppb:** - parts per billion (also = to ug/l or micrograms per liter – or one ounce in 7,350,000 gallons of water)
- NTU:** - Nephelometric Turbidity Unit, used to measure cloudiness of drinking water.
- %<0.5 NTU** - Percent samples less than 0.5 NTU.
- pCi/l:** - Pico curies per liter, used to measure radioactivity.

**Chicago - Detected Contaminants**

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample
<b>Microbial Contaminants</b>						
<i>Total Coliform Bacteria (%pos/mo)</i> Human and animal fecal waste	0	5%	0.2 %	n/a		
<i>Fecal Coliform and E. coli (%pos/mo)</i> Human and animal fecal waste measurement.	0	0	1	n/a		
<i>Turbidity (&lt;0.3 NTU)</i> Soil runoff. Lowest monthly percent meeting limit.	n/a	TT	99.740%	99.740%- 100.00%		
<i>Turbidity (NTU)</i> Soil runoff. Highest single measurement.	n/a	TT=1 NTUmax	0.38	n/a		
<b>Inorganic Contaminants</b>						
<i>Arsenic (ppb)</i> <i>Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.</i>	0	10	0.56	0.52 – 0.56		2007
<i>Barium (ppm)</i> Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.0182	0.0175 – 0.0182		
<i>Copper (ppm)</i> <i>Corrosion of household plumbing system: Erosion of natural deposits.</i>	1.3	AL=1.3	0.032 (90th percentile)	0 sites exceeding AL		6/1/2009- 9/30/2009
<i>Lead (ppm)</i> <i>Corrosion of household plumbing system: Erosion of natural deposits</i>	0	AL =15	6.07 (90th percentile)	1 site exceeding AL		6/1/2009- 9/30/2009
<i>Nitrate (as Nitrogen) (ppm)</i> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.311	0.288 – 0.311		
<i>Total Nitrate and Nitrite (ppm)</i> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.311	0.288 – 0.311		

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample
<b>Synthetic Organic Contaminants (Including Pesticides &amp; Herbicides)</b>						
Di (2-ethylhexy) phthalate (ppb) Discharge from rubber & chemical factories	0	6	0.76	0.00 - 0.76		
<b>Disinfectants and Disinfection By-Products (Stage I)</b>						
TTHMs (Total Trihalomethanes) (ppb) By-product of drinking water disinfection.	n/a	80	20.000*	11.700 – 28.600		
HAA5(Haloacetic Acids) (ppb) By-product of drinking water disinfection.	n/a	60	10.000*	6.000 – 14.200		
*TTHMs HAA5s and Chlorine are for the Chicago Distribution System. *Highest Running Annual Average Computed.						
Chlorine (as Cl <sub>2</sub> ) (ppm) Drinking water disinfectant.	4.0	4.0	0.80	0.7063 – 0.8189		
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 the IEPA.						
<b>Unregulated Contaminants</b>						
Sulfate (ppm) Erosion of naturally occurring deposits.	n/a	n/a	33.600	30.400 – 33.600		
Sodium (ppm) Erosion of naturally occurring deposits; Used as a water softener.	n/a	n/a	8.98	8.26 – 8.98		
<b>State Regulated Contaminants</b>						
Fluoride (ppm) Water additive which promotes strong teeth.	4	4	0.817	0.651 – 0.817		
<b>Radioactive Contaminants</b>						
Combined Radium (226/228)(pCi/L) Decay of natural and man-made deposits.	0	5	1.38	1.300 – 1.380		03-17-2008
Gross Alpha excluding Radon and Uranium Decay of natural and man-made deposits.	0	15	0.88	0.090 – 0.880		03-17-2008

#### Woodridge - Detected Contaminants

Lead & Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2008	1.3	1.3	0.12	0	ppm	N	Erosion of natural deposits; Leaching; from wood preservatives; Corrosion of household plumbing systems
Lead	2008	0	15	1.6	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Also, 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. 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. Since the predominant land use within Illinois' boundary of Lake Michigan watershed is urban, a majority of the watershed protection activities in this document are aimed at this purpose. 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 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.

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 312-744-7001 or by calling the Groundwater Section of the Illinois EPA at 217-785-4787.

#### Educational Statements Regarding Commonly Found Drinking Water Contaminants

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 the water poses a health risk. More information about contaminants and their potential health risks can be obtained by calling the **U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791**.

The sources of drinking water (both tap 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. 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 may be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming;
- *Pesticide and herbicides*, which may come from a variety of sources such as agricultural, urban stormwater 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 stormwater runoff and septic systems; and
- *Radioactive contaminants*, which may be naturally occurring or be the result of oil and gas production and mining.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that 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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the **U.S. EPA's Safe Drinking Water Hotline at 1-800-426-4791**. Finally, in compliance with the provisions of the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), the Chicago Department of Water Management had undertaken monthly source water monitoring for Cryptosporidium, Giardia, E. coli, and turbidity, a process that began in October 2006 and ended in September 2008. The goal of LT2ESWTR is to require water systems, whose source is susceptible to Cryptosporidium contamination, to improve control of the pathogen. Monitoring performed in 2006 did not detect any Cryptosporidium or Giardia in source water samples collected.

# Village of Woodridge Annual Water Quality Report January 1, 2010 to December 31, 2010

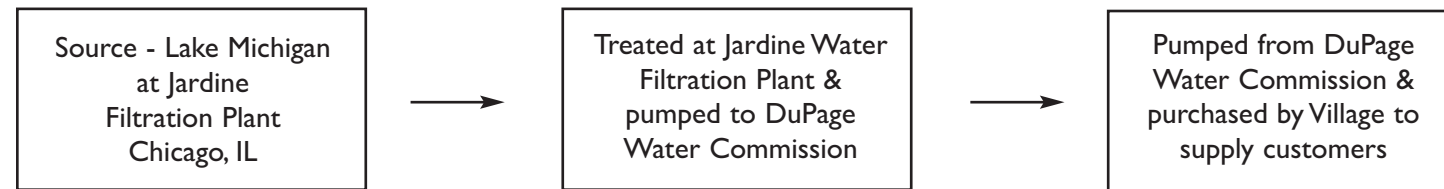
## About this report

The Village of Woodridge Department of Public Works wants all customers to be aware of what is being done to insure that the water you use is safe for you and your family. We are proud to report that the Village of Woodridge currently meets or exceeds all water quality standards set by both the United States and the Illinois Environmental Protection Agencies. These agencies developed a Safe Drinking Water Act (SDWA) that sets standards for water quality and monitors compliance. We can report that there has been no violation of contaminant level or any other water quality standard during the period beginning **January 1, 2010** and ending **December 31, 2010** of the Village of Woodridge's potable water system.

Please take some time to read this annual report. If you have any questions about this report or concerning your water supply, please contact Ken Bevan, Water Operator, at 630-719-4753. We want our customers to be informed about their water quality.

**Christopher Bethel**  
Director of Public Works

### Where Does Woodridge Get its Water From?



### Source Water Assessment Summary

*(Provided to the Village by the City of Chicago)*

The Illinois EPA (IEPA) completed the Source Water Assessment Program for our supply. The IEPA 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 determines the susceptibility of the source water to contamination.

Source Water Location – The City of Chicago utilizes Lake Michigan as its source water via two 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.

Susceptibility to Contamination – The IEPA 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 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 Chicagoland area. This included 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 recently created Department of the Water Management, Department of Environment and the MWRDGC (Metropolitan Water Reclamation District of Greater Chicago) to assure the safety of the city's water supply.

### **Disinfectants and Disinfection By-Products**

Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
TTHMs (Total Trihalomethanes)	2010	37	26 – 48	No Goal For the Total	80	ppb	No	By-product of drinking water chlorination.
HAA5 (Total Haloacetic Acids)	2010	16	10.7 – 21	No Goal For the Total	60	ppb	No	By-product of drinking water chlorination.
Chlorine	2010	0.7	0.605-0.8375	MRDLG =4	MRDL =4	ppm	No	Water additive used to control microbes.

*Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old. Additionally, not all sample results may have been used for calculating the Highest Level Detected because some results may have been part of an evaluation to determine where compliance sampling should occur in the future.*

### Lead in Drinking Water

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in the drinking water is primarily from materials and components associated with service lines and home plumbing. Woodridge is responsible for providing high quality drinking water, but 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

### 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.

### 2010 Violation Summary Table

This table is intended to assist you in the identification of year 2010 violation(s) that are required to be reported and explained in your CCR.

Woodridge Violation Description	Start Date	End Date
<b>None</b>		

### **NOTE TO RESIDENTS**

This report is mandated by the Environmental Protection Agency (EPA). The Village receives no financial assistance from the EPA to publish this report. The 2010 Water Quality Report costs approximately **\$4,250.00** to print and mail to residents.