

# Village of Woodridge Annual Water Quality Report

January 1, 2013 to December 31, 2013

## 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, 2013** and ending **December 31, 2013** 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 Mike Kaczmarek, Water Operator, at 630-719-4753, or attend a Woodridge Village Board meeting on the second and fourth Thursdays of each month at 7:30pm in the Werch Board Room, 5 Plaza Drive, Woodridge IL 60517. We want our customers to be informed about their water quality. This report is made available on the Village's Website at <http://bit.ly/1oyrM4p>. A hard copy of the report will be mailed to you upon request by contacting Public Works at (630) 719-4753.

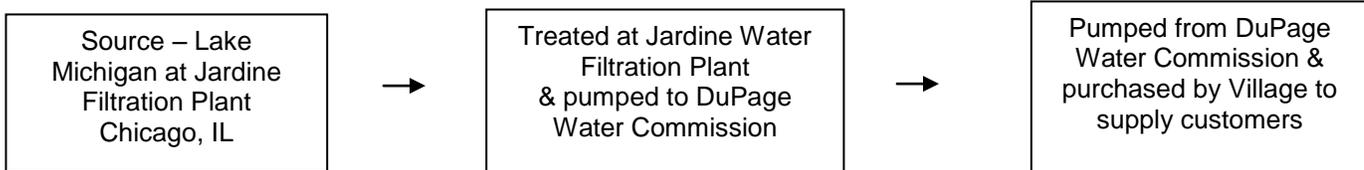
Respectfully,

*Christopher Bethel*

Christopher Bethel  
Director of Public Works

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## 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. 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 (CDWM) at 312-744-6635 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**.

### **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 on the source water by the City of Chicago. 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.

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 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.

**Endocrine Disrupting Chemicals** - The City of Chicago Department of Water Management (CDWM) completed a water quality study to monitor some compounds that have not historically been considered to be contaminants of concern, but have been recently documented as trace concentrations in our nation's water-bodies. This study, completed in the years 2009 – 2011, includes compounds known as Endocrine Disrupting Chemicals (EDCs) and Pharmaceuticals & Personal Care Products (PPCPs), which are considered to be emerging contaminants. EDCs are compounds with potential to interfere with natural hormone systems. PPCPs are a group of compounds consisting of prescription or over-the-counter therapeutic drugs, veterinary drugs, and consumer products such as sunscreen, lotions, insect repellent, and fragrances. The reader is encouraged to visit the United States Environmental Protection Agency (USEPA) website to learn more about EDCs (<http://www.epa.gov/ncer/science/endocrine/>) and PPCPs (<http://www.epa.gov/ppcp/>).

**Chromium-6** – In 2013, CDWM has also continued monitoring for hexavalent 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 questions or concerns to CDWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City of Chicago's website which can be accessed at: [http://www.cityofchicago.org/city/en/depts/water/supp\\_info/water\\_quality\\_resultsandreports/city\\_of\\_chicago\\_emergincontaminantstudy.html](http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emergincontaminantstudy.html).

**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.

## 2013 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, 2013 through December 31, 2013. 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.

### **Detected Contaminants (reported by Chicago)**

<b>Contaminant (unit of measurement) Typical Source of Contaminant</b>	<b>Collection Date</b>	<b>MCLG</b>	<b>MCL</b>	<b>Highest Level Detected</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
Microbial Contaminants							
<i>Turbidity (NTU/lowest monthly % ≤ 0.3 NTU)</i>	2013	n/a	TT(95% ≤ 0.3NTU)	100%	100% - 100.0%	N	Soil runoff. (Reported by Chicago)
<i>Turbidity (NTU/highest single measurement)</i>	2013	n/a	TT (1 NTU max)	0.18	n/a	N	Soil runoff. (Reported by Chicago)

<b>TOTAL ORGANIC CARBON</b>							
<i>TOC (Total Organic Carbon)</i>		The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA.					
<b>Inorganic Contaminants</b>	<b>Collection Date</b>	<b>MCLG</b>	<b>MCL</b>	<b>Highest Level Detected</b>	<b>Range of Detections</b>	<b>Violation</b>	<b>Likely Source of Contaminant</b>
<i>Arsenic (ppb)</i>	2013	0	10	0.77	0.519 – 0.767	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes. (Tested at, and reported by Chicago)
<i>Barium (ppm)</i>	05/04/2011	2	2	0.077	0.077 – 0.077	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
<i>Chromium (ppb)</i>	05/04/2011	100	100	10	10 - 10	N	Discharge from steel and pulp mills; Erosion of natural deposits.
<i>Fluoride (ppm)</i>	2013	4	4	0.9	0.856 – 0.922	N	Water additive which promotes strong teeth. (Tested at, and reported by the City of Chicago)
<i>Iron (ppm)</i>	05/04/2011		1.0	0.019	0.019 – 0.019	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
<i>Manganese (ppb)</i>	05/04/2011	150	150	3.2	3.2 – 3.2	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
<i>Nitrate (as Nitrogen) (ppm)</i>	2013	10	10	0.36	0.00 – 0.36	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<i>Selenium (ppb)</i>	2013	50	50	2.48	ND – 2.48	N	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines. (Tested at, and reported by Chicago)
<i>Sodium (ppm)</i>	05/04/2011	n/a	n/a	150	150 – 150	N	Erosion of naturally occurring deposits; Used in water softener regeneration.

Radioactive Contaminants	Date Collected	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Likely Source of Contaminant
Combined Radium (226/228) (pCi/L)	05/04/2011	0	5	1.287	1.287 – 1.287	N	Erosion of natural deposits.
Gross Alpha excluding Radon and Uranium (pCi/L)	05/04/2011	0	15	1.1	1.1 – 1.1	N	Erosion of natural deposits.

### Lead and Copper

Lead & Copper	Date Collected	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	9/12/11	1.3	1.3	0.089	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	9/12/11	0	15	1.4	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

### Disinfectants and Disinfection By-Products

Regulated Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
TTHM (Total Trihalomethanes)	2013	40	17 – 48.75	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
HAA5 (Haloacetic Acids)	2013	17	6.3 – 26.7	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Chlorine	12/31/13	0.8	0.6- 1.0	MRDLG =4	MRDL =4	ppm	N	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 be 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 <http://www.epa.gov/safewater/lead>.

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### **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.

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### **2013 Violation Summary Table**

This table is intended to assist you in the identification of year 2013 violation(s) that are required to be reported and explained in the Woodridge Consumer Confidence Report – Annual Water Quality Report.

#### **Woodridge**

<b><u>Violation Description</u></b>	<b><u>Start Date</u></b>	<b><u>End Date</u></b>
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No Violations

#### **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 2013 Water Quality Report costs approximately **\$500.00** to print and mail to residents.

**Report Prepared: May 30, 2014**