

## 2012 Water Quality Report

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Village of Glen Ellyn water meets or exceeds all state and federal water quality standards



This Annual Water Report is for the period of January 1, 2012 to December 31, 2012.

This report is intended to provide you with important information about your drinking water and the efforts made by the water purveyors to provide safe drinking water.

The source of the drinking water used in Glen Ellyn is Purchased Surface Water from Lake Michigan.

For more information regarding this report contact:

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### OVERVIEW OF GLEN ELLYN'S WATER SYSTEM

Lake Michigan is a surface water supply, providing drinking water to the City of Chicago and over 120 suburban communities. The Great Lakes system comprises 21% of the World's fresh water.

Drinking water in the Village of Glen Ellyn is supplied by the DuPage Water Commission (DWC), which purchases Lake Michigan water from the City of Chicago. Before it is purchased by the DWC, lake water is treated at Chicago's Jardine Purification Plant. After leaving the Jardine Purification Plant, the water is conveyed to DWC's metering stations and then sold to Glen Ellyn. It then goes into either the water distribution system or into a water storage facility. The Glen Ellyn water distribution system consists of 147 miles of water main, 1,368 water main valves and 1,265 fire hydrants. We also have two standby ground water wells, 2 one-million gallon reservoirs and 2 elevated storage tanks with a combined 1.25 million gallon capacity.

The average pumpage to our customers is 2.75 million gallons per day. This equates to one billion gallons purchased on an annual basis, or an average of 100 gallons per day per person.

Glen Ellyn delivers high-quality drinking water. Many steps must be taken to attain this goal. Daily monitoring is conducted at all receiving stations. Each week, water samples are collected at representative locations throughout the Village and brought to an independent certified laboratory for microbiological analysis. Sample collection and facility monitoring are performed by Village staff members who are IEPA certified Public Water Supply Operators. Samples are also collected and analyzed to detect specific Volatile Organic Contaminants in the water as prescribed by federal and state regulation.

The sources of drinking water (both tap and bottled water) include rivers, lakes, ponds, streams, 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 material, and can pick up substances resulting from the presence of animals or from human activity.

Possible contaminants consist of:

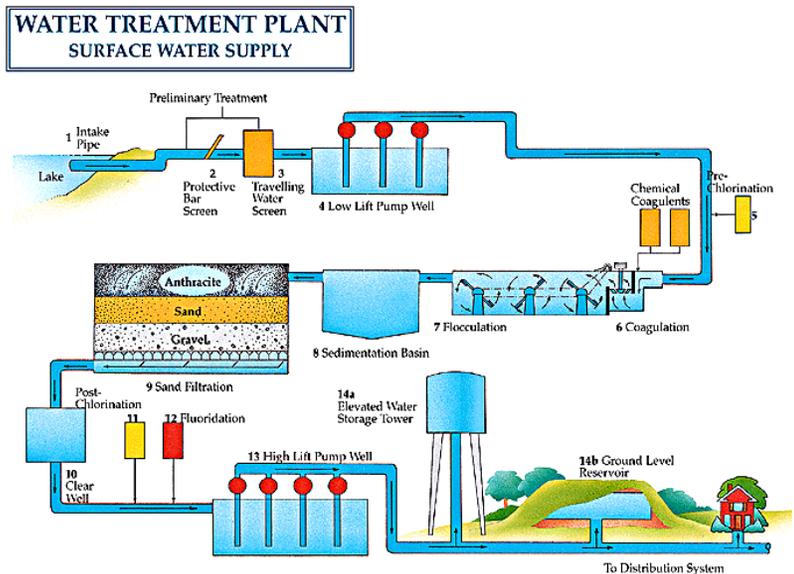
**MICROBIAL CONTAMINANTS**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;

**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 and farming;

**PESTICIDES and HERBICIDES**, which may come from a variety of sources such as agriculture, 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 activities.



The table below shows the results of our water quality analysis based on tests conducted during 2012. Every regulated contaminant that was detected in the water, even in minute traces, is listed here. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement. Definitions of MCL and MCLG are important.

**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. MCL's are set as close to MCLG's as feasible using the best available treatment technology.

**Treatment Technique (TT)** - A required process intended to reduce the level of a contaminant in drinking water.

**Action Level (AL)**- The concentration of a contaminant that triggers treatment or other required actions by the water supply.

**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.

**Maximum Residual Disinfectant Level Goal (MRDLG)** - The level of a 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.

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

## Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contamination	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
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### Turbidity Data

TURBIDITY (%<0.3 NTU) *	n/a	TT (95% ≤0.3NTU)	99.7%	99.7%-100%	NO	2012
Soil runoff. Lowest monthly percent meeting limit.						
TURBIDITY (NTU) *	n/a	TT (1NTUmax )	0.69	n/a	NO	2012
Soil runoff. Highest Single Measurement.						

NOTE: Turbidity is a measure of cloudiness in water. The City of Chicago monitors turbidity because it is a good indicator of water quality and the effectiveness of the filtration system and disinfectants.

### Inorganic Contaminants

ARSENIC (ppb) *	0	10	0.67	0.52-0.67	NO	2012
Erosion of natural deposits; runoff from orchards; Runoff from glass and electronics production wastes.						
BARIUM (ppm) *	2	2	0.0204	0.0194-0.0204	NO	2012
Discharge from drilling wastes; Discharge from metal refineries; Erosion of natural deposits.						
NITRATE (As Nitrogen) (ppm) *	10	10	0.34	0.34-0.34	NO	2012
Runoff from fertilizer use; Leaching of septic tanks; Erosion of natural deposits.						
TOTAL NITRATE & NITRITE (As Nitrogen) (ppm) *	10	10	0.34	0.34-0.34	NO	2012
Runoff from fertilizer use; Leaching of septic tanks; Erosion of natural deposits.						

### Total Organic Carbon

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.

### State Regulated Contaminants

FLUORIDE (ppm) *	4	4	0.85	0.84-0.85	NO	2012
Water additive which promotes strong teeth.						

NOTE: Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal range of 0.9 mg/l to 1.2 mg/l.

### Radioactive Contaminants

COMBINED RADIUM 226/228 (pCi/L) *	0	5	1.38	1.30-1.38	NO	3/17/2008
Decay of natural and man-made deposits.						
GROSS ALPHA (pCi/L) *	0	15	0.88	0.09-0.88	NO	3/17/2008
(Excluding radon and uranium) Decay of natural and man-made deposits.						

NOTE: The State requires monitoring of certain contaminants less than once per year because the concentration of these contaminants does not change frequently.

<b>ABBREVIATIONS</b>	n/a Not Applicable	AL Action Level	TT Treatment Technique	NTU Nephelometric Turbidity Units
	pCi/l Picocuries per liter (a measure of radioactivity)	ppm Parts per million, or milligrams per liter (mg/l) or one ounce in 7,350 gallons of water.		
	ppb Parts per billion, or micrograms per liter (ug/l), or one ounce of water in 7,350,000 gallons of water.			
	(*) Samples Collected by the City of Chicago. All other samples were collected by the Village of Glen Ellyn.			

Contaminant (unit of measurement) Typical Source of Contamination	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
<b>Unregulated Contaminants</b>						
SULFATE (ppm) * Erosion of naturally occurring deposits.	n/a	n/a	17.6	13.4 - 17.6		2012
SODIUM (ppm) * Erosion of naturally occurring deposits. Used in water softener.	n/a	n/a	7.07	6.88 - 7.07		2012
NOTE: There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.						
NOTE: The maximum contaminant level (MCL) for Unregulated Contaminants have not been established by either state of federal regulations, nor has mandatory health effects language. The purpose for monitoring these contaminants is to assist the USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.						

<b>Disinfectants and Disinfection By-Products</b>						
CHLORINE (ppm) Water additive used to control microbes.	MRDLG=4	MRDL=4	0.93	0.20 - 0.93	NO	2012
HALOACETIC ACIDS (HAA5) (ppb) By-product of drinking water chlorination.	No Goal for Total	60	13.05 (Average)	7.08 - 21.4	NO	2012
TOTAL TRIHALOMETHANES (TThm) (ppb) By-product of drinking water chlorination.	No Goal for Total	80	35.44 (Average)	23.4- 58.5	NO	2012
NOTE: Not all sample results may be used for calculating the Highest Level Detected in the HAA5's and TThm's because some results may be part of an evaluation to determine where sampling should occur in the future.						

<b>Lead &amp; Copper</b>							
CONTAMINANT (UNITS)	MCLG	ACTION LEVEL (AL)	90th PERCENTILE	# of SITES EXCEEDING AL	VIOLATION	COLLECTION DATE	LIKELY SOURCE OF CONTAMINATION
LEAD (ppb)	0	15	7.86	2	NO	2011	Corrosion of household plumbing systems; Erosion of natural deposits.
COPPER (ppm)	1.3	1.3	.212	0	NO	2011	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
<p><i>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. Glen Ellyn is responsible for providing high quality drinking water, but we 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 the 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 to lead is available from the Safe Drinking Water Hotline (800) 426-4791 or on the web at <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.</i></p>							

**2012 Volunteer Monitoring**

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 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium cysts 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.

In 2012, Chicago Department of Water Management has also continued monitoring for Hexavalent Chromium, also known as 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 DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring for Chromium-6 are posted on the City's website which can be accessed at the following address below.

**UNREGULATED CONTAMINANT MONITORING RULE II (UCMR II) :** The City of Chicago was required to monitor for all contaminants required under the Unregulated Contaminant Monitoring Rule (UCMR II). Started in 2009, monitoring under UCMR II was completed in 2011, with none of the contaminants detected. Inquiries and results may be obtained calling the Chicago Water Quality Division office (312) 742-7499.

[http://www.cityofchicago.org/city/en/depts/water/supp\\_info/water\\_quality\\_resultsandreports/chromium-6.html](http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/chromium-6.html)

**Additional Health Information**

In order to ensure that tap water is safe to drink, the USEPA 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.

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 USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons 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 provider. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium or other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

The Illinois EPA considers all surface water sources of a 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 the mandatory treatment of 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.

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 the Public Works Department or call our water operator at (630) 469-6756. 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>.



We want our valued customers to be informed about their water quality. If you are interested in learning more about our drinking water, or have questions, please call Gary Bach at the Village of Glen Ellyn Public Works Department at (630) 469-6756.

Please feel free to attend any of our regularly scheduled board meetings which are posted on the Village Website: [www.glenellyn.org](http://www.glenellyn.org)

VILLAGE OF GLEN ELLYN  
535 DUANE STREET  
GLEN ELLYN, IL 60137

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**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

Este informe contiene información muy importante sobre el agua que usted bebe.  
Tradúzcalo ó hable con alguien que to entienda bien.