

## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. 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 some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

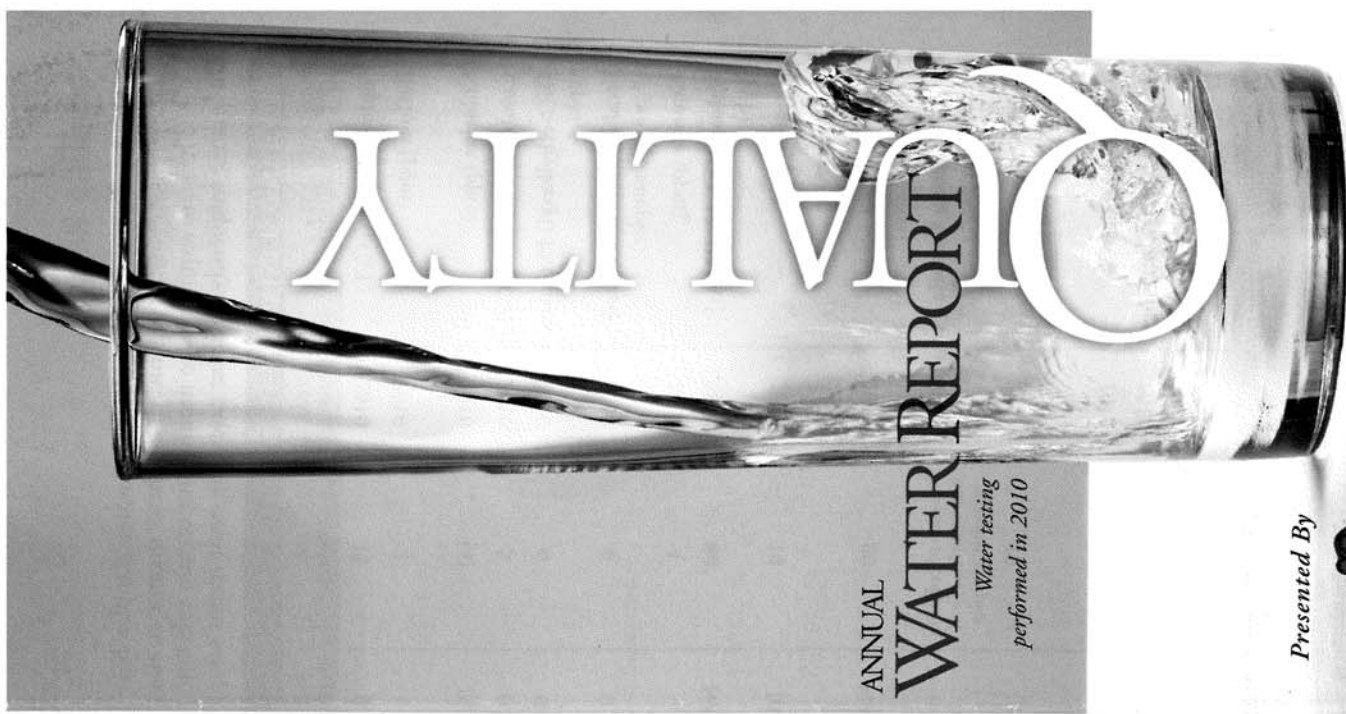
**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

**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;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

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Village of Willowbrook  
7760 Quincy Street  
Willowbrook, IL 60527

## Dear Willowbrook Water Customer:

The Consumer Confidence Report (CCR) rule requires all community water systems to provide reports to their customers on the quality of their drinking water. In this report, the Village of Willowbrook, in conjunction with the DuPage Water Commission, City of Chicago, and the Illinois Environmental Protection Agency (IEPA), is providing the required information pertaining to source water monitoring for the period January 2010 through December 2010.

The Village of Willowbrook has provided water that meets all the requirements of the United States Environmental Protection Agency (U.S. EPA) and the Illinois Environmental Protection Agency (IEPA) drinking water standards. The following report is being provided to help you better understand the quality of the water you consume and use on a daily basis. Consumers with medical conditions may use the water quality analysis provided here or request a City of Chicago complete water analysis, to use when consulting with their family doctors. Others may learn ways to better protect their children from the effects of lead in our environment, or how to conserve water in our daily lives. A well-informed consumer is the best ally the Village has in providing clean, safe water to its customers.

Sincerely,

Robert A. Napoli

*Village President*

Village of Willowbrook

## Working Hard For You

The Village of Willowbrook tests the water supply for chlorine content on a daily basis to maintain the optimum levels for consumers' needs. On a monthly basis, bacteriological samples are taken. On a yearly basis, samples are submitted for Total Trihalomethane (TTHM) analysis. Samples are also provided for lead and copper monitoring on a schedule established by the IEPA. All testing and reports are performed according to the requirements of the IEPA.

The testing of the Village of Willowbrook's water supply produced no monitoring violations during monitoring year 2010.

## Where Does My Water Come From?

The City of Chicago utilizes Lake Michigan as its source water via two water 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 lies entirely 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.

The Village of Willowbrook purchased approximately 368 million gallons of Chicago water from the DuPage Water Commission through a 20-inch supply main connected directly to the DuPage Water Commission supply grid. This connection provides all the water required by the Village's local and retail customers. This water is received into a water storage standpipe and pumping station complex, and is then pumped to the Village's local and retail customer base. The water is sampled and chlorinated as required to maintain the quality as delivered by the DuPage Water Commission from the City of Chicago.

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 at which 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, extraordinary steps have been taken to assure a safe source of drinking water in the Chicagoland 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 MWRDGC 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 the Lake Michigan watershed is urban, a majority of the watershed protection activities in this report 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.

## Questions?

For more information about this report, or for any questions relating to your drinking water, please contact Tim Halik, Village Administrator, at (630) 920-2237.



## Sampling Results

During the past year, hundreds of water samples have been taken in order to determine the presence of any radioactive, biological, inorganic, volatile organic, or synthetic organic contaminants. The tables below show only those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES <sup>1</sup>							
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2010	15	0	0.88	0.090-0.880	No	Erosion of natural and man-made deposits
Barium (ppm)	2010	2	2	0.0182	0.0175-0.0182	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2010	[4]	[4]	0.80	0.7063-0.8189	No	Water additive used to control microbes
Combined Radium (pCi/L)	2010	5	0	1.38	1.300-1.380	No	Erosion of natural and man-made deposits
Di(2-ethylhexyl) Phthalate (ppb)	2010	6	0	0.76	ND-0.76	No	Discharge from rubber and chemical factories
Fecal coliform and <i>E. coli</i> <sup>2</sup> (# positive samples)	2010	0	0	1	NA	No	Human and animal fecal waste
Fluoride (ppm)	2010	4	4	0.817	0.651-0.817	No	Water additive that promotes strong teeth
Haloacetic Acids [HAAs] (ppb)	2010	60	NA	10.000 <sup>3</sup>	6.000-14.200	No	By-product of drinking water disinfection
Nitrate (ppm)	2010	10	10	0.311	0.288-0.311	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] <sup>3</sup> (ppb)	2010	80	NA	20.000 <sup>4</sup>	11.700-28.600	No	By-product of drinking water disinfection
Total Coliform Bacteria (% positive samples)	2010	Presence of coliform bacteria in >5% of monthly samples	0	0.2%	NA	No	Naturally present in the environment
Total Nitrate + Nitrite (ppm)	2010	10	10	0.311	0.288-0.311	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Turbidity <sup>4</sup> (NTU)	2010	TT	NA	0.38	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2010	TT-95% of samples<0.3	NA	99.740	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH% TILE)	SITES ABOVE AL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2010	1.3	1.3	0.032	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2010	15	0	6.07	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

### STATE REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Sodium <sup>5</sup> (ppm)	2010	NA	NA	8.98	8.26-8.98	No	Erosion of naturally occurring deposits; Used in water softener regeneration

### SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Sulfate (ppm)	2010	250	NA	33.600	30.400-33.600	No	Erosion of naturally occurring deposits

<sup>1</sup>The percentage of Total Organic Carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set by the IEPA.

<sup>2</sup>Focal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.

<sup>3</sup>Highest Running Annual Average Computed.

<sup>4</sup>Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

<sup>5</sup>Sodium is not currently regulated by the U.S. EPA. However, the State has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

## Definitions

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

**MCL (Maximum Contaminant Level):** 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. Secondary MCLs (SMCL) are set for the control of taste and odor.

**MCLG (Maximum Contaminant Level Goal):** 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.

**MRDL (Maximum Residual Disinfectant Level):** 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.

**MRDLG (Maximum Residual Disinfectant Level Goal):** 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.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

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

## Lead in Home Plumbing

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. We are 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 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Important Health Information

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



### Why do I get this report each year?

Community water system operators are required by Federal law to provide their customers an annual water quality report. The report helps people make informed choices about the water they drink. It lets people know what contaminants, if any, are in their drinking water and how these contaminants may affect their health. It also gives the system operators a chance to tell customers what it takes to deliver safe drinking water.

### Why does my water sometimes look milky?

The milky look is caused by tiny air bubbles in the water. The water in the pipes coming into your home or business is under pressure, so gasses (the air) are dissolved and trapped in the pressurized water as it flows into your glass. As the air bubbles rise in the glass, they break free at the surface, thus clearing up the water. Although the milky appearance might be disconcerting, the air bubbles won't affect the quality or taste of the water.

### Is it okay to use hot water from the tap for cooking and drinking?

No, ALWAYS use cold water. Hot water is more likely to contain rust, copper, and lead from household plumbing and water heaters. These substances can dissolve into hot water faster than they do into cold water, especially when the faucet has not been used for an extended period of time.