

# Village of Glenview Annual Water Quality Report

January 1 - December 31, 2006

*For the period of January 1, thru December 31, 2006 the Village of Glenview Water Supply has met all USEPA and Illinois state drinking water standards. This Consumer Confidence Water Quality Report is required by the Federal Environmental Protection Agency to be published annually. The report summarizes the quality of the water that was provided this past year including details about where your water comes from, what it contains, how it compares to current standards and who to contact if you have questions. Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.*

## Water Source and Delivery System

The Village of Glenview purchases all of its water from the Village of Wilmette. The Village of Wilmette operates a conventional water filtration and treatment plant. All the water treated at the plant comes from Lake Michigan. After the water is treated it is then pumped to Glenview. The Village of Glenview operates six pumping stations and pumps water into two separate distribution systems and pressure zones. The Glenview water systems have a total water storage capacity of over 17 million gallons and water is pumped to your home or business through a network of pipes which total over 261 miles long.

## 2006 Source Water Assessment Summary

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 intakes with no protection and only dilution. For this reason mandatory treatment for all surface water supplies is required.

A workgroup from the Great Lakes States was organized to develop a protocol for assessing the Great Lakes. The mission of the Great Lakes protocol was to develop a consistent procedure allowing the flexibility necessary to properly conduct source water assessments of the Great Lakes as a drinking water source. This flexibility takes into account the variability of these sources and site-specific concerns for the determination of source sensitivity and susceptibility (Illinois EPA 1999). Sensitivity is defined as the intrinsic ability of surface water to be isolated from contaminants by physical attributes of the hydrologic or geologic setting. With this in mind, the degree of sensitivity becomes the prevailing factor in the susceptibility determination for the intakes on the Great Lakes.

Wilmette's intakes are located far enough offshore that shoreline impacts are not considered a factor to water quality. However at certain times of the year the potential for contamination exists due to wet-weather storm water flows from the North Shore Channel. If currents are flowing in a northerly direction, contaminants from these flows could migrate to the intakes and compromise water quality. Correlation between Evanston's rainfall data,

North Shore Channel discharge dates and Wilmette's coliform data show the potential effect of these flows on Wilmette's water quality.

In addition, the proximity to major shipping lanes add to the susceptibility should there be a spill near the intakes. Water supply officials at Wilmette are active members of the West Shore Water Producers Association. Coordination regarding water quality situations, (i.e., tanker leaks, spills, exotic species, etc.) are frequently discussed. Lake Michigan, as well as all the great lakes, has many different organizations that are of watershed protection activities in this document are aimed at this purpose

## Sources of Drinking Water

In order to ensure that tap water is safe to drink, the 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. The sources of drinking water (both tap water and bottled water) include rivers, streams, lakes, ponds, 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; it can also 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 septic systems, sewage treatment plants, agricultural livestock operations and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally occurring or from urban storm water runoff, industrial and domestic wastewater discharges, oil and gas production, mining or farming.

**Pesticide and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses;

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas station, urban storm water runoff and septic systems;

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

Drinking water, including bottled water, may be reasonably 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 can be obtained by calling the USEPA 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 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 from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA Safe Water Hotline (1-800-426-4791).

In addition to the informational section of the Water Quality Report, we have included several tables for your review. The tables will give you a better picture of the contaminants that were detected in your water and contaminants that were tested for but not detected.

### Understanding the Water Quality Data

**Definitions:**

**MCLG:** Maximum Contaminant Level Goal, or 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.

**MCL:** Maximum Contaminant Level, or 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.

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

**Abbreviations:**

**ND** - not detectable at testing limits, **NA** - not applicable, **ppm** - parts per million or milligrams per liter; **ppb** - parts per billion or micrograms per liter.

In most cases, the "Level Detected" column represents an average of sample result data, collected during the calendar year. If a date appears in the "Date of Sample" column, the Illinois EPA requires monitoring for this contaminant less than once a year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the calendar year.



## The Village of Glenview

### 2006 Water Quality Data

*Regulated Detected Contaminants*

Inorganic Contaminants	MCLG	AL	90th Percentile	Sites over AL	Violation	Date
Copper (ppm)	1.3	1.3	<0.1	0	none	12/31/05
Lead (ppb)	0	15	4.7	0	none	12/31/05
Disinfection/Disinfection By-Products	MCLG	MCL	Levels Detected		Violation	Date
Total Haloacetic Acid (ppb)	N/A	60	14.43-21.17	N/A	none	8/7/06
Total Trihalomethane (ppb)	N/A	80	17.74-29.48	N/A	none	8/7/06

*Microbial Contaminants*

	MCLG	MCL	Levels Detected	Violation	Date
Total Coliform Bacteria	0	<5%	none	none	monthly
Fecal Coliform and E. Coli	0	0	none	none	monthly



### 2006 Village of Wilmette Water Quality Data

Listed below is data supplied by Village of Wilmette. This water analysis information was compiled, from samples that Wilmette is required to take of their water supply system annually, and is required to be included in this report.

Inorganic Contaminants	MCLG	AL	90th Percentile	Sites Over AL	Violation	Date
Copper (ppm)	1.3	1.3	.315	0	none	12/31/05
Lead (ppb)	0	15	8.9	0	none	12/31/05

Inorganic Contaminants	MCLG	MCL	Level Detected	Violation	Date
Barium (ppm)	2	2	.02	none	4/27/06
Flouride (ppm)	4	4	1.0	none	4/27/06
Nitrate (ppm)	10	10	.43	none	4/27/06
Sodium (ppm)	N/A	N/A	10	none	4/27/06
<b>Disinfection / Disinfectant Bi-products</b>					
Total Trihalomethanes (ppb)	N/A	80	8.6 - 20.78	none	8/16/06
Total Haloacetic Acids (ppb)	N/A	60	1.2-12.3	none	5/31/06
Chlorine (ppm)	4	4	.6858 - .7298	none	12/31/06
<b>Trubidity</b>	<b>Treatment Technique</b>	<b>Limit Lowest Monthly %</b>	<b>Highest Measurement</b>	<b>Violation</b>	
	.3 NTU	100	.14	none	

### About the Data

#### Barium

Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.

#### Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short time could experience gastrointestinal distress or could suffer liver or kidney damage and develop Wilson's disease. People with Wilson's disease should consult their personal doctor. Possible sources of copper in water supplies can come from household plumbing systems, erosion of natural deposits and leaching from wood preservatives.

#### Lead

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical and mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Possible sources of lead in water supplies can come from household plumbing systems and erosion of natural deposits.

#### TTHMs Total Trihalomethanes and HAA5 Haloacetic Acids

Some people who drink water containing trihalomethanes and or haloacetic acids in excess of the MCL over many years, may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer. Trihalomethanes and haloacetic acids are by-products of water chlorination.

#### Total Coliform Bacteria

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Coliforms found in more samples than allowed are a warning of potential problems.

#### Fecal Coliforms and E. Coli

Fecal 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 young children and people with severely compromised immune systems.

#### Sodium

There is not a state or federal MCL for sodium. Monitor-

ing 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.

### Fluoride

Some people who drink water containing fluoride in excess of the MCL over many years could get bone **disease**. Children may get mottled teeth. Fluoride can be found in natural deposits, and as a discharge from fertilizer and aluminum factories. Fluoride is a water additive which promotes strong teeth.

### Nitrate and Nitrite

Infants below the age of six months who drink water containing nitrite or nitrate in excess of the MCL could become seriously ill, and if left untreated, may die. Symptoms include shortness of breath and blue-baby syndrome. Nitrate and nitrites can be found in the erosion of natural deposits, leaching of sewage and septic tanks and as runoff from fertilizer use.

### Turbidity

Turbidity is the measurement of the cloudiness of the water caused by suspended particles and it's primary source is soil runoff. It is monitored because it is a good indicator of water quality and the effectiveness of the filtration systems and disinfectants.

*If you have any questions concerning this report or your water system please contact: Doug Fick, Water Superintendent, ph. # (847) 657-3030. If you know of anyone who receives Glenview water service and did not receive this report, it is available on the Internet at the Glenview web site, WWW.GLENVIEW.IL.US if you wish to obtain additional copies, they are available upstairs in the Water Billing office at the Village Hall 1225 Waukegan Rd., Glenview, Ill. 60025*

## Did You Know?



- Glenview has been purchasing its water from the Village of Wilmette since 1938. In fact, about **70 percent of the water Wilmette pumps and treats comes into Glenview** (and this will probably jump to 80 percent within the next couple of years).
- Wilmette draws in about **13.8 million gallons of water from the lake every day**.
- Glenview, in turn, pulls in about **9.75 million gallons of treated water each day** from Wilmette. But on hot summer days, the amount has peaked at **20 million gallons!**
- On average, Glenview uses **134 gallons of water/person each day**.
- Our water supply is **monitored 24 hours a day** by both Wilmette and Glenview.
- Both Glenview and Wilmette constantly **test water samples for biological and chemical contaminants**. Wilmette has a laboratory on site at its water plant where full time staff members routinely do "spot checks" of raw and treated water, and Glenview tests 60 water samples each month for *E.Coli*.
- We're prepared for emergencies! The Village of Glenview has **agreements and underground connections with both the Village of Northbrook and the Village of Northfield for emergency supplies of water**, should we need them. Wilmette has back-up power at its water plant, and the Rugen Road and West Lake reservoir/pumping stations have **two sources of power**. Many of our stations have **back-up generators**.