

# 2008 Annual Water Quality Report



**Fernway**

PWS ID: IL0315030

Este informe contiene información muy importante sobre su agua de beber.  
Tradúscalo ó hable con alguien que lo entienda bien.

## A Message from Illinois American Water President

*As a trusted leader in the industry, Illinois American Water places a strong emphasis on sharing information about the quality of the water we provide with our customers.*

*One way we do this is by reporting to you annually the results of our tests on the water we deliver to your home. Please review this Consumer Confidence Report (CCR), which outlines information applicable to your local water system for testing completed through December, 2008. You'll find that we provide water that surpasses or meets all federal and state water quality regulations. In fact, we often address regulations well before they go into effect.*

*Just as important, Illinois American Water makes the necessary investments to maintain and upgrade its facilities, so that we can deliver quality water directly to your tap 24 hours a day, seven days a week.*

*Our customers are our top priority, and we are committed to providing them with the highest quality drinking water and service possible now and in the years to come. In addition to this written report, you can view information about Illinois American Water and your water system on our website [www.illinoisamwater.com](http://www.illinoisamwater.com). For more information or for more copies of this report relating to your drinking water, please contact Tom Chinske at 630-739-8849 or at [thomas.chinske@amwater.com](mailto:thomas.chinske@amwater.com).*

*Sincerely,*

*Karla Olson Teasley  
President of Illinois American Water*

## What is a Water Quality Report?

Illinois American Water issues a report annually describing the quality of your drinking water in compliance with state and United States Environmental Protection Agency (USEPA) regulations. The purpose of this report is to increase understanding of drinking water and raise awareness of the need to protect your drinking water sources.

At our state-of-the-art research laboratory in Belleville, Illinois, we conduct over 57,000 tests per year, checking drinking water quality at every stage of the water treatment and delivery process. In 2008, we conducted tests for hundreds of contaminants, all of which were federal and state maximum allowable levels. This report provides an overview of last year's (2008) water quality. It includes details about your water source and what it contains.

## Source Water Information

The source of water for the Fernway District is surface water originating in Lake Michigan and purchased from the City of Chicago through the villages of Oak Lawn and Tinley Park.

Lake Michigan is a surface water supply used to provide drinking water for Chicago and 123 suburban communities. The Illinois Environmental Protection Agency (IEPA) has found that the quality of Lake Michigan has improved dramatically over the past 20 years. Lake Michigan, by volume, is the second largest Great Lake and the only one located totally within the United States.

The IEPA has completed a source water assessment for the City of Chicago. The IEPA considers all surface water sources to be susceptible to potential pollution problems. The City of Chicago has one near-shore intake that is considered susceptible to storm water runoff, marinas and shoreline point sources from the influx of groundwater to the lake. Two offshore intakes are located at such a distance that shoreline impacts are not a likely factor for water quality. Due to the susceptible nature of surface water, extensive treatment is required for all surface water supplies in Illinois.

## Environmental Stewardship

Illinois American Water is committed to protecting the environment and our water resources to maintain water supply for future generations. A few of our community programs include:

**Pharmaceutical disposal programs:** As a member of the IEPA's Medication Education Disposal Solution program, Illinois American Water collaborates with environmentalists, pharmacists, water utilities and healthcare providers to develop local pharmaceutical disposal programs. The group also works together to promote proper pharmaceutical disposal practices. To learn more or to find a disposal location near you, please visit <http://www.epa.state.il.us/medication-disposal/>.

**Water conservation:** Illinois American Water offers free National Theatre for Children programs for elementary schools to teach students about wise use of our water resources.

**Environmental grant program:** Our nation-wide environmental grant program presented 18 grants in 2008, totaling more than \$100,000 for programs that improve, restore and protect our watersheds.

## About American Water

Founded in 1886, American Water is the largest investor-owned U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs more than 7,000 dedicated professionals who provide drinking water, wastewater and other related services to approximately 15 million people in 32 states and Ontario, Canada.

Illinois American Water, a wholly owned subsidiary of American Water (NYSE:AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to more than 1.2 million people. We own and maintain approximately 4,393 miles of main, 284,743 water meters, and 28,317 hydrants in over 100 Illinois communities, from Cairo to the Chicago suburbs.

## Questions?

To learn more about water quality, visit our website at: [www.illinoisamwater.com](http://www.illinoisamwater.com). For questions or copies contact Tom Chinske, water quality supervisor, at [thomas.chinske@amwater.com](mailto:thomas.chinske@amwater.com) or at 630-739-8849.

## Water Information Sources

- **Illinois American Water**  
[www.illinoisamwater.com](http://www.illinoisamwater.com)
- **United States Environmental Protection Agency (USEPA)**  
[www.epa.gov/safewater](http://www.epa.gov/safewater)
- **Safe Drinking Water Hotline:** 800-426-4791
- **Illinois Environmental Protection Agency (IEPA)**  
[www.epa.state.il.us](http://www.epa.state.il.us)
- **Surf Your Watershed**  
Locate your watershed and a host of information.  
<http://cfpub.epa.gov/surf/locate/index.cfm>
- **Envirofacts**  
Access to U.S. environmental data  
[www.epa.gov/enviro](http://www.epa.gov/enviro)

## Substances Expected to be in Drinking Water

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 can acquire naturally occurring minerals and, in some cases, radioactive material, and can pick up 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 storm water 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 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, may also come from gas stations, urban storm water runoff, and septic systems.

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

To ensure that tap water is of high quality, USEPA prescribes regulations limiting the amount of certain substances 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. Illinois American Water's advanced water treatment processes are designed to reduce any such substances to levels well below any health concern.

## LEAD

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. Illinois American Water 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 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>.

## Important Health Information

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. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline 800-426-4791.

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.

USEPA/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 800-426-4791.

## A Message For People With Severely Weakened Immune Systems

*Cryptosporidium* is a protozoan found in untreated surface waters throughout the United States (the organism is generally not present in a ground water source). Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100% removal. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, people with severely weakened immune systems have a risk of developing life-threatening illness. We encourage such people to consult their doctors regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it is spread through means other than drinking water.

## How to Read the Data Tables

Illinois American Water and the City of Chicago conduct extensive monitoring to ensure that your water meets all water quality standards. The monitoring results are reported in the data tables. While most monitoring was conducted in 2008, certain substances are monitored less than once per year because the levels do not change frequently. For help with interpreting these tables, see the “Table Definitions” section and footnotes.

### Table Definitions and Abbreviations

- **Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
- **Amount Detected:** Unless otherwise noted in the footnotes, an average of all sample results for the year, or results from a single sample if only one was collected. If multiple entry points exist, the data from the entry point with the highest value is reported.
- **Compliance Achieved:** Indicates that the levels found were all within the allowable levels as determined by the EPA.
- **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.
- **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 disinfectant routinely allowed in drinking water. Addition of a disinfectant is necessary for control of microbial contaminants.
- **MRDLG (Maximum Residual Disinfectant Level Goal):** The level of 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 contamination.
- **NA:** Not applicable
- **NTU - Nephelometric Turbidity Units:** Measurement of the clarity, or turbidity, of water.
- **ppm (parts per million):** One part substance per million parts water, or milligrams per liter.
- **ppb (parts per billion):** One part substance per billion parts water, or micrograms per liter.
- **Range of Detections:** The range of individual sample results, from lowest to highest, that were collected during the sample period.
- **TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.
- **% < 0.3 NTU:** Percent of all samples less than 0.3 NTU.
- **S:** Single Sample

## 2008 Water Quality Information

We are pleased to report that during the past year, the water delivered to your home or business complied with, or was better than, all state and federal drinking water requirements. For your information, we have compiled a table showing what substances were detected in your drinking water during 2008. Although all of the substances listed are under the Maximum Contaminant Level (MCL) set by the USEPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

Regulated Substances (Measured in the water leaving the City of Chicago treatment facility)								
Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source	
Arsenic	2007	0	10	0.56	0.52 - 0.56	Yes	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	
Beta/Photon Emitters (pCi/L)	2008	0	5	1.38	1.3 - 1.38	Yes	Decay of natural and man-made deposits	
Barium (ppm)	2008	2	2	0.0194	S	Yes	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	
Fluoride (ppm) <sup>1</sup>	2008	4	4	1.05	0.92 - 1.05	Yes	Water additive that promotes strong teeth	
Gross Alpha (pCi/L)	2008	0	15	0.88	0.09 - 0.88	Yes	Decay of natural and man-made deposits	
Nitrate (ppm) <sup>2</sup>	2008	10	10	0.32	0.304 - 0.32	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	
Nitrate & Nitrite (ppm) <sup>2</sup>	2008	10	10	0.32	0.304 - 0.32	Yes	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	
TOC [Total organic carbon] <sup>3</sup>	2007	NA	TT	TOC <sup>3</sup>	TOC <sup>3</sup>	Yes	Naturally present in the environment	
Other Compounds (Measured in the Fernway distribution system)								
Substance (units)	Year Sampled	MCLG/MRDLG	MCL/MRDL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source	
TTHMs [Total trihalomethanes] (ppb)	2008	NA	80	33.7	33.0 - 52.2	Yes	By-product of drinking water chlorination	
HAA5 [Haloacetic acids] (ppb)	2008	NA	60	12.6	12.6 - 12.6	Yes	By-product of drinking water chlorination	
Chlorine (ppm)	2008	4	4	0.5	0.2875 - 0.6125	Yes	Water additive used to control microbes	
Turbidity <sup>4</sup> - (Measured in water leaving the City of Chicago treatment facility)								
Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source	
Turbidity (NTU) (% < 0.3 NTU)	2008	NA	TT	100%	S	Yes	Soil runoff	
Turbidity (NTU)	2008	NA	TT = 1 NTU max	0.14	NA	Yes	Soil runoff	
Lead and Copper <sup>5</sup> (Collected at customers taps)								
Substance (units)	Year Sampled	MCLG	Action Level	90th Percentile	Number of Samples Collected	Number of Samples Above Action Level	Compliance Achieved	Typical Source
Copper (ppm)	2008	1.3	1.3	0.043	20	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2008	0	15	.002	20	0	Yes	Corrosion of household plumbing systems; Erosion of natural deposits
State Regulated Substances (Measured in the water leaving the City of Chicago treatment facility)								
Substance (units)	Year Sampled	MCLG	MCL	Amount Detected	Range of Detections	Compliance Achieved	Typical Source	
Sodium (ppm) <sup>6</sup>	2008	NA	NA	8.85	8.13 - 8.85	Yes	Erosion of naturally occurring deposits; By-product of water softening	
Unregulated Substances <sup>7</sup> (Measured at City of Chicago treatment facility).								
Substance (units)	Year Sampled	Amount Detected		Range of Detections		Typical Source		
Sulfate (ppm)	2008	28.9		27.7 - 28.9		Erosion of naturally occurring deposits		

<sup>1</sup> Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.9 mg/L to 1.2 mg/L.

<sup>2</sup> The value in the "amount" column is the maximum detected for the year.

<sup>3</sup> Total organic carbon (TOC) has no health effects. However, TOC contributes to the formation of disinfection by-products. Reduction of TOC can help to minimize disinfection by-product formation. The percentage of TOC removal was measured each month and the City of Chicago water system met all TOC removal requirements set by Illinois EPA.

<sup>4</sup> Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The treatment technique requires that at least 95% of routine samples are less than or equal to 0.3 NTU, and no sample exceeds 1 NTU. We are reporting the percentage of all readings meeting the standard of 0.3 NTU, plus the single highest reading for the year.

<sup>5</sup> Compliance with the Lead and Copper Rule (LCR) is determined by the levels of lead and copper found in samples taken from customers' taps. LCR requirements are met if the 90th percentile of all samples taken does not exceed the action level of 15 ppb for lead or 1,300 ppm for copper.

<sup>6</sup> There is no 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.

<sup>7</sup> A maximum contaminant level (MCL) for this substance has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this substance is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.