



# Water Quality

## Consumer Confidence Report



Confirming the Quality of Drinking Water in the City of Rolling Meadows • June 2011

## City Water Again Meets Federal, State Safety Standards

The Consumer Confidence Report (CCR) provides basic facts regarding the City's water system, so that individuals have the information necessary to make water consumption decisions based on their personal health.

The annual report provides a general overview of water quality and water system operations. It details where the water comes from, what it contains, and how it compares to regulating agency standards. Most of the information and statements contained in this report are required by the Illinois Environmental Protection Agency (IEPA) for public knowledge.

The staff in the Water Operations Division of the Department of Public Works takes great pride in delivering water that consistently meets drinking water quality requirements. **Once again this year, Rolling Meadows drinking water has met all United States Environmental**



*Pumping stations help City operators distribute water to meet fluctuating daily consumption requirements.*

### Protection Agency (USEPA) and state drinking water standards.

Since 1986, our community is 100 percent dependent on Lake Michigan for supplying treated water for daily use. Water pumped from the City of Chicago's treatment facility is delivered to Rolling Meadows through the Northwest Suburban

Municipal Joint Action Water Agency (JAWA), located near O'Hare International Airport, using a network of transmission mains. Rolling Meadows has three delivery points throughout the City that regulate incoming flow. The daily flow rate is adjusted to meet system demands and maintain a sufficient amount of water for emergency uses, such as firefighting needs.

Rolling Meadows maintains water storage requirements of 5.5 millions gallons and controls four pumping stations that let system operators store or distribute water when needed as consumption fluctuates throughout the day. The City also manages redundant operations for use during critical events. The water system includes four deep wells that will provide water system-wide, should a disruption of water flow from JAWA occur, and emergency generators that supply electricity to ensure an uninterrupted supply of water.

## More about Water Quality in the City of Rolling Meadows

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).

### Make Informed Decisions

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.

**Cryptosporidium** – Because accurate test methods for detecting cryptosporidium at very low levels are not currently available, the EPA does not require testing of the treated (finished) water unless concentrations in the raw water (before treatment) exceed

10 microbes per sample. All raw water tests have been well below the EPA threshold.

EPA/CDC (Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA Safe Drinking Water Hotline.

**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. The City of Rolling Meadows is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

### Testing Methods

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, including 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/).

# 2010 Water Quality Data: City of Chicago – ‘Parent Water Supply’

Contaminants that may be in water include:	Date of Sample	Violation	Level Found	Range of Detection	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Microbial Contaminants</b>								
Total Coliform Bacteria		None	0.20%	n/a	% Pos/Month	0	5%	Human and animal fecal waste.
Fecal Coliform and E. Coli		None	1	n/a	# Pos/Month	0	0	Human and animal fecal waste.
Turbidity		None	99.740%	99.740-100%	(%<0.3 NTU)	n/a	TT	Soil runoff. Lowest monthly percent meeting limit.
Turbidity		None	0.38	n/a	(NTU)	n/a	TT=1NTU max	Soil runoff. Highest single measurement.
<b>Inorganic Contaminants</b>								
Barium		None	0.0182	0.0175-0.0182	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion from natural deposits.
Copper (90th Percentile)	6/1/09 – 09/30/09	None	0.032	Exceeding AL	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (90th Percentile)	6/1/09 – 9/30/09	None	6.07	Exceeding AL	ppb	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate (as Nitrogen)		None	0.311	0.288-0.311	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Total Nitrate & Nitrite (as Nitrogen)		None	0.311	0.288-0.311	ppm	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Synthetic Organic Contaminants (including Pesticides and Herbicides)</b>								
Di (2-ethylhexyl) phthalate		None	0.76	0.00-0.76	ppb	0	6	Discharge from rubber and chemical factories.
<b>Unregulated Contaminants</b>								
Sulfate		None	33.600	33.400-33.600	ppm	n/a	n/a	Erosion of naturally occurring deposits.
Sodium		None	8.98	8.26-8.98	ppm	n/a	n/a	Erosion of naturally occurring deposits; Used as water softener.
<b>State Regulated Contaminants</b>								
Fluoride		None	0.817	0.651-0.817	ppm	4	4	Water additive that promotes strong teeth.
<b>Radioactive Contaminants</b>								
Combined Radium (226/228)	3/17/08	None	1.38	1.300-1.380	pCi/l	0	5	Decay of natural and man-made deposits.
Gross Alpha (excluding radon and uranium)	3/17/08	None	0.88	0.090-0.880	pCi/l	0	15	Decay of natural and man-made deposits.
<b>Disinfectants/Disinfection By-Products</b>								
TTHMs (Total Trihalomethanes)		None	20.000*	11.700-28.600	ppb	n/a	80	By-product of drinking water disinfection.
HAA5 (Haloacetic Acid)		None	10.000*	6.000-14.200	ppb	n/a	60	By-product of drinking water disinfection.
TTHMs, HAA5, and Chlorine are for the City of Chicago distribution system. *Highest Running Annual Average computed.								
Chlorine (as Cl2)		None	0.80	0.7063-0.8189	ppm	4	4	Drinking water disinfectant.
<b>TOC (Total Organic Carbon)</b>								
The percentage of Total Organic Carbon removal was measured each month and the system met all TOC removal requirements set by the IEPA.								

## Information Collection Rule

During an 18-month period, large water systems (serving more than 100,000 people) were required to monitor for unregulated compounds and microbial organisms. The tables on these pages show the results of the analyses for disinfection by-products that were detected in the distribution system samples. These compounds may be regulated in the future based on occurrence data and available health effects information.

## Table Footnotes

**Turbidity** – A measure of the cloudiness of the water. It's monitored because it's a good indicator of water quality and the effectiveness of the filtration system and disinfectants.

**Unregulated Contaminants** – Neither a maximum contaminant level (MCL) nor mandatory health effects language has been established for this contaminant by either state or federal regulations. 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.

**Sodium** – There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who are concerned about sodium intake due to dietary precautions. Residents on a sodium-restricted diet should consult a physician about this level of sodium in the water.

**Fluoride** – 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.

# 2010 Water Quality Data: City of Rolling Meadows Water Supply

Contaminants that may be in water include:	Date of Sample	Violation	Level Found	Range of Detection	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Microbial Contaminants</b>								
Total Coliform Bacteria		None	0	n/a	% Pos/Month	0	5%	Human and animal fecal waste.
Fecal Coliform and E. Coli		None	0	n/a	# Pos/Month	0	0	Human and animal fecal waste.
<b>Disinfectants/Disinfection By-Products</b>								
Chlorine		None	0.8	0.6589-0.8589	ppm	MRLDG=4	MRDL=4	Water additive to control microbes.
TTHMs (Total Trihalomethanes)		None	37*	24.9 - 50	ppb	n/a	80	By-product of drinking water chlorination.
HAA5 (Haloacetic Acid)		None	15*	13.66-16.46	ppb	n/a	60	By-product of drinking water chlorination.
*Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.								
<b>Inorganic Contaminants</b>								
Barium	7/20/09	None	0.0406	0.0344-0.0406	ppm	2	2	Erosion of natural deposits; Discharge from drilling and metal refineries.
Fluoride	7/20/09	None	1.26	0.966-1.26	ppm	4	4	Erosion of natural deposits; Water additive for strong teeth; Discharge from fertilizer and aluminum factories.
Iron	7/20/09	None	1.4	0.267-1.4	ppm	n/a	1	Erosion of natural deposits.
Sodium	7/20/09	None	35.8	21.7-35.8	ppm	n/a	n/a	Erosion of naturally occurring deposits; Used in water softening regeneration.
<b>Radioactive Contaminants</b>								
Combined Radium (226/228)		None	18.5	3-18.5	pCi/l	0	5	Erosion of natural deposits.
Gross Alpha (excluding radon and uranium)		None	18.4	6.6-18.4	pCi/l	0	15	Erosion of natural deposits.
Uranium		None	3.129	3.129-3.129	ug/l	0	30	Erosion of natural deposits.

## Table Definitions

**MCLG (maximum contaminant level goal)** – 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.

**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.

**Date of Sample** – If a date appears in this column, the EPA requires monitoring for this contaminant less than once a year, because concentrations do not frequently change. If no date appears in this column, monitoring for this contaminant was conducted during the CCR calendar year.

**Level Found** – An average of sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

**Range of Detection** – A range of individual sample results (lowest to highest) that were collected during the calendar year.

**AL (action level)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

n/a – Not applicable

nd – Not detectable at testing limits

TT (treatment technique) – A process required to reduce the level of a contaminant in the drinking water.

ppm – Parts per million, or milligrams per liter

ppb – Parts per billion

ug/l – Micrograms per liter

# pos/mo – Number of positive samples per month

NTU – Nephelometric Turbidity Unit, used to measure cloudiness in drinking water

pCi/l – Picocuries per liter, used to measure radioactivity

%<0.5NTU – Percent of samples less than 0.5 NTU

% pos/mo – Percent of positive samples per month

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

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

## Contaminants May Be Natural, Man-made

Sources of tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over 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. Possible contaminants may be:

**Inorganic** – Salts and metals, which may be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, and farming.

**Microbial** – Viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Pesticides and Herbicides** – These come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

**Organic Chemical** – Synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive** – Naturally occurring or the result of oil and gas production, and mining.

## 2010 Violation Summary Table

The Cities of Chicago and Rolling Meadows had no violations to report. This report follows a format prescribed by the federal government and is published as an annual requirement of the federal and Illinois EPA.



**Department  
of Public Works**  
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Rolling Meadows, IL 60008

PRSRT STD  
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## IEPA Conducts Source Water Assessment

We want our customers to be informed about their water quality. The Source Water Assessment for our water supply (Lake Michigan) has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Public Works office or call 847-963-0500. To view a summary version of the completed Source Water Assessment, visit the Illinois EPA online at [www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl/](http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl/).

The IEPA considers all surface water sources of community water supply to be susceptible to potential water 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 the crib structures may serve to attract water fowl, gulls and terns that frequent the Great Lakes area. This may concentrate fecal deposits at the intake and compromise the source water quality. Conversely, the short intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake.

## Regulations Minimize Threat of Microbial Contamination

Enforced regulations prohibit industrial effluents from entering Lake Michigan. As a result, the City of Chicago has no indication that natural and man-made contaminants are present at this time. Sewage treatment plant effluents are not discharged into the lake, thereby reducing the threat of microbial contamination. All 63 miles of Lake Michigan shore within the State of Illinois are considered to be in good condition.

## Answers to Questions About Water Quality

If you have any questions about this report or concerns regarding the water system, please contact John Somogyi, Public Works Department Superintendent of Water Operations, at 847-963-0500 (ext. 7012).

## Report Complies with Safe Water Drinking Act

The Rolling Meadows Department of Public Works publishes this annual Water Quality newsletter to meet the requirements of the Federal Safe Drinking Water Act and to provide information about the City's water system to our customers.

The Water Operations Division is diligent in its efforts to ensure that drinking water delivered to homes and businesses remains safe, and is of the highest quality.



## City Qualifies for Reduced Sampling

Because of satisfactory lead and copper sampling results since August 1992, Rolling Meadows has been placed on the reduced site monitoring program by the Illinois EPA. Samples to test for lead levels are collected every three years.

To become eligible for reduced sampling, the City's 90th percentile sample had to be below the EPA requirements of 15 parts per billion. The results were less than 5 parts per billion.