

## City of Rock Island WATER SUPPLY FACTS

- First municipal water supply was established August 14, 1871
- 12,000,000 gallons maximum daily production
- 5,000,000 gallons average daily production
- 225 miles of underground water mains
- 2,000 fire hydrants
- 6 elevated water towers
- 15,500 water customers

### Water Service Repair Program

This program will protect you from the unexpected costs of a water service repair and the nuisance of arranging financing and hiring a plumbing contractor on short notice.

The Water Service Repair Program is available to customers who own non-leaking water services that are 1½ inches in diameter or less at a cost of \$5.00 per month.

Contact the Public Works Department at 732-2200 or visit the city's website at [www.rigov.org](http://www.rigov.org) for additional information.



## A Year in Review

This past year, as in previous years, Rock Island's tap water met all USEPA and Illinois drinking water quality standards. Rock Island uses the Mississippi River as its source of drinking water, providing extensive treatment and performing over 15,000 chemical and bacteriological tests annually to insure that your water is the highest quality possible.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. As water travels over the surface of the land or through the ground it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or from human activity.

Contaminants 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 and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or 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 can also come from gas stations, urban stormwater runoff, and septic systems.

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

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).

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

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

### CRYPTOSPORIDIUM TESTING

*Cryptosporidium* is a microbial parasite found in surface water throughout the U.S. Although filtration removes *cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 per cent removal. Monitoring of our source water detected the presence of low levels of *cryptosporidium* (1-2 oocysts per 10L sample) in a small percentage of the samples tested. Current test methods cannot determine if the organisms detected are dead or capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised individuals are at greater risk of developing life-threatening illness. Immuno-compromised individuals are encouraged to consult their doctors regarding appropriate precautions to avoid infection. *Cryptosporidium* must be ingested to cause disease and it may be spread through means other than drinking water.

# City of Rock Island Annual Water Quality Report

## CONTAMINANT TESTING FOR 2007

Regulated Contaminants	Maximum Contaminant Level Goal	Total Coliform MCL	Highest # of Positive Total	Total # of Positive E. Coli or Fecal Samples	Violations	Likely Source of Contaminant
Coliform Bacteria	0	5% monthly samples are positive	3	0	No	Naturally present in the environment

Regulated Contaminants	MCLG	Action Level	90 Percentile	# Sites Over AL	Likely Source of Contaminant
Lead	0 ppb	15 ppb	9	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	1.3 ppm	1.3 ppm	.34	0	Corrosion of household plumbing systems; Erosion of natural deposits

Regulated Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violations	Likely Source of Contaminants
<b>Disinfectants &amp; Disinfection By-Products</b>							
Chloramines	3.7	1.8-3.7	ppm	MRDLG=4	MRDL=4	No	Water additive used to control microbes
Total Haloacetic Acids (HAA5)	50	14.6	ppb	N/A	60	No	By-product of drinking water chlorination
TTHMs (total Trihalomethanes)	61.8	26.7-61.8	ppb	N/A	80	No	By-product of drinking water chlorination
<b>Inorganic Contaminants</b>							
Barium	.02	N/A	ppm	2	2	No	Discharge of drilling wastes, Discharge from metal
Fluoride	0.9	N/A	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; fertilizer discharge
Nitrate-Nitrite	2.9	N/A	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate (As N)	3	2.1-3	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

*MCL Statement: The maximum contaminant level (MCL) for TTHM and HAA5 is 80 ppb and 60 ppb respectively and is currently only applicable to surface water supplies that serve 10,000 or more people. These MCLs will become effective 01/01/2004 for all groundwater supplies and surface supplies serving less than 10,000 people. Until 01/01/2004, surface water supplies serving less than 10,000 people, any size water supply that purchase from a surface water source, and groundwater supplies serving more than 10,000 people must meet a state imposed TTHM MCL of 100 ppb. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their livers, kidneys, or central nervous systems, and may have increased risk of getting cancer.*

*Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old. 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. AL (Action Level): The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow.*

# City of Rock Island Annual Water Quality Report

## CONTAMINANT TESTING FOR 2007 (Continued)

State Regulated Contaminants	Highest Level Detected	Range of Levels Detected	Unit of Measurement	MCLG	MCL	Violations	Likely Source of Contaminant
Sodium	30	N/A	ppm	N/A	N/A	No	Erosion of naturally occurring deposits; used in water softener regeneration
Manganese	3	N/A	ppb	N/A	150	No	Erosion of naturally occurring deposits

There is not a state of 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.

### FINISHED WATER TURBIDITY

Limit (Treatment Technique)	Lowest Monthly % Meeting Limit	Violation	Source
0.3 NTU	99.73%	No	Soil Runoff

  

Limit (Treatment Technique)	Highest Single Measurement	Violation	Source
1 NTU	0.66	No	Soil Runoff

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

### 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 IEPA, unless a TOC violation is noted in the violations section.

### 2007 VIOLATIONS

Rule or Contaminant	Violation Type	Violation Duration
1 Coliform, Total (TCR)	Monitoring (TCR), Routine Minor	7/01/2006 to 7/31/2006
2 Coliform, Total (TCR)	Monitoring (TCR), Repeat Major	9/01/2007 to 9/30/2007

1 Original notice for this sampling violation (only 39 of 40 required samples collected) did not include all required language. Corrected notices were mailed to all customers beginning 8/17/2007.

2 Required repeat bacteria samples were collected on time. Final sample reports did not reach Illinois EPA until after reporting deadline.

#### 2007 WATER QUALITY DATA (DETECTED CONTAMINANTS) DEFINITION OF TERMS

##### Action Level (AL)

The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

##### 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 Contaminant Level Goal (MCLG):

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.

##### Maximum Contaminant Level (MCL):

The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technologies.

##### Maximum Residual Disinfectant Level (MRDL):

The highest level of disinfectant allowed in drinking water.

##### Maximum Residual Disinfectant Level Goal (MRDLG):

The level of disinfectant in drinking water below where there is no known or expected risk to health. MRDLG's allow for a margin of safety.

##### Range of Levels Detected:

This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

**nd:** Not detectable at testing limits

**n/a:** Not applicable

#### UNITS OF MEASUREMENT FOR TESTING

- ppm - Parts per million, or milligram per liter
- ppb - Parts per billion, or micrograms per liter
- ppt - Parts per trillion
- pCi/l - Picocuries per liter, used to measure radioactivity
- NTU - Nephelometric Turbidity Unit, used to measure cloudiness in drinking water
- % <= 0.5 NTU - Percent samples less than 0.5 NTU
- % pos/mo - Per cent positive samples per month

### SOURCE WATER ASSESSMENT SUMMARY

Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems, hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Within the Illinois portion of the Upper Mississippi River Watershed, many commodities, including manufactured goods, petrochemicals, and pesticides are transported along the river system. The production, storage, and transportation of these commodities are a major concern, especially when occurring near water intakes. In addition, agricultural runoff within the Illinois portion of the Upper Mississippi River Basin contributes to the susceptibility of the Rock Island intake. With high flow rates and long distances of travel on the Mississippi River, critical areas can be extensive. The critical area for the Rock Island intake was determined using data from a joint U.S. Environmental Protection Agency/U.S. Geological Survey project. This project used a computer modeling (SPARROW) to determine travel times on major rivers in the United States.

# 2007 Annual Water Quality Report

City of Rock Island  
Public Works Department



Water Treatment Plant

City of Rock Island  
Public Works Department  
1309 Mill Street  
Rock Island, IL 61201

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U S POSTAGE  
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