



# Water

Confirming the Quality of Drinking Water in the City of Rolling Meadows



# Quality

## Consumer Confidence Report

June 2018

### Report Spotlights City Water Quality

*Rolling Meadows drinking water once again meets all United States Environmental Protection Agency (USEPA) and state drinking water standards.*

This 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.

### Annual Report Complies with Safe Drinking Water Act

The Public Works Department publishes this annual *Water Quality* newsletter to meet the requirements of the Federal Safe Drinking Water Act and to provide information about Rolling Meadows' 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 of the highest quality.

## City Employees Committed to Providing Safe, High-Quality Drinking Water

Ensuring the quality of residents' drinking water is something in which employees of the Public Works Department's Water Operations Division take great pride.

Their commitment to meeting state and federal water quality mandates involves:

- **Operating** four pumping stations that retain or distribute water as consumption fluctuates throughout the day.
- **Maintaining** water storage requirements of 5.5 million gallons.
- **Managing** redundant operations for use during critical events.

Since 1986, our community has been 100% reliant on Lake Michigan for treated water for daily use. Water pumped from the City of Chicago's treatment facility is delivered to Rolling



*Crews replace a section of underground water main. In total, the City's system features 90+ miles of pipes that deliver an average of 14 million gallons of water to customers each week.*

Meadows through the Northwest Suburban Municipal Joint Action Water Agency (NSMJAWA), 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.

Should a disruption of water flow from NSMJAWA occur, the City's water system includes four deep wells and emergency generators to ensure an uninterrupted supply of water.



*Pumping stations help Water Division employees distribute water to meet fluctuating daily consumption requirements.*

### 2017 Violation Summary Table

**The Cities of Rolling Meadows and Chicago 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.

# Water Quality Data: City of Chicago – ‘Parent Water Supply’ (2017)

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>Turbidity Data</b>								
Turbidity		NONE	100%	100%–100%	(%<0.3 NTU)	n/a	TT (Limit 0.3 NTU)	Soil runoff. NTU/Lowest monthly (% < 0.3 NTU).
Turbidity		NONE	0.26	n/a	(NTU)	n/a	TT (Limit 1 NTU)	Soil runoff. NTU/Highest single measurement.
<b>Inorganic Contaminants</b>								
Barium		NONE	0.0193	0.0191–0.0193	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Nitrate (as Nitrogen)		NONE	0.36	0.32–0.36	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Total Nitrate & Nitrite (as Nitrogen)		NONE	0.36	0.32–0.36	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
<b>Total Organic Carbon</b>								
TOC (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 the IEPA.								
<b>Unregulated Contaminants</b>								
Sulfate		NONE	26.3	26.2–26.3	ppm	n/a	n/a	Erosion of naturally occurring deposits.
Sodium		NONE	8.06	7.81–8.06	ppm	n/a	n/a	Erosion of naturally occurring deposits; used as water softener.
<b>State Regulated Contaminants</b>								
Fluoride		NONE	0.75	0.59–0.75	ppm	4	4	Water additive that promotes strong teeth.
<b>Radioactive Contaminants</b>								
Combined Radium (226/228)	2/11/14	NONE	0.84	0.50–0.84	pCi/l	0	5	Decay of natural and man-made deposits.
Gross Alpha excluding Radon and Uranium	2/11/14	NONE	6.6	6.1–6.6	pCi/l	0	15	Decay of natural and man-made deposits.
Some contaminants are sampled less frequently than once a year. As a result, not all contaminants were sampled during the CCR calendar year. If any of these contaminants were detected the last time they were sampled, they are included in the table, along with the date the detection occurred.								

### TABLE FOOTNOTES

<b>Turbidity</b> – 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.	<b>Unregulated Contaminants</b> – 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.
<b>Fluoride</b> – 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.	<b>Sodium</b> – There is not a state or federal MCL for sodium. Monitoring is not 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.

## Run Faucets to Minimize Potential Lead Exposure

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.** If your faucet has not been used for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two 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 – including testing methods and steps you can take to minimize exposure – is available from the Safe Drinking Water Hotline (800-426-4791) or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).



# Water Quality Data: City of Rolling Meadows Water Supply (2017)

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>Disinfectants/Disinfection By-Products</b>								
Chlorine	12/31/17	NONE	0.9	0.8-1.0	ppm	MRDLG=4	MRDL=4	Water additive to control microbes.
TTHMs (Total Trihalomethanes)	2017	NONE	41	19.76-57.4	ppb	No Goal	80	By-product of drinking water disinfection.
HAA5 (Haloacetic Acid)	2017	NONE	21	11.1-21.5	ppb	No Goal	60	By-product of drinking water disinfection.
<b>Inorganic Contaminants</b>								
Fluoride	10/19/15	NONE	1.0	1.0-1.0	ppm	4	4	Erosion of natural deposits; water additive for strong teeth; discharge from fertilizer and aluminum factories.
Iron	10/19/15	NONE	1.8	1.8-1.8	ppm	n/a	1.0	Erosion of natural deposits. <i>This contaminant is not currently regulated by USEPA. However, the state regulates.</i>
Manganese	10/19/15	NONE	18.9	18.9-18.9	ppb	150	150	Erosion of natural deposits. <i>This contaminant is not currently regulated by USEPA. However, the state regulates.</i>
Sodium	10/19/15	NONE	19.8	19.8-19.8	ppm	n/a	n/a	Erosion of naturally-occurring deposits; used in water softening regeneration.
<b>Radioactive Contaminants</b>								
Combined Radium (226/228)	7/18/16	NONE	15.7	9.1-15.7	pCi/l	0	5	Erosion of natural deposits.
Gross Alpha excluding Radon and Uranium	7/18/16	NONE	39.9	20.0-39.9	pCi/l	0	15	Erosion of natural deposits.
<b>Summary Table</b>								
Contaminants that may be in water include:	Date of Sample	Violation	MCLG	Action Level	90th Percentile	# of Sites Over AL	Units	Likely Source of Contamination
<b>Lead and Copper</b>								
Copper	2017	NONE	1.3	1.3	0.117	0	ppm	Erosion of natural deposits; leaching from wood preservatives; corrosion of household plumbing systems.
Some contaminants are sampled less frequently than once a year. As a result, not all contaminants were sampled during the CCR calendar year. If any of these contaminants were detected the last time they were sampled, they are included in the table, along with the date the detection occurred.								

## TABLE DEFINITIONS

# pos/mo – Number of positive samples per month.

%<0.3 NTU – Percent of samples less than 0.3 NTU.

% pos/mo – Percent of positive samples per month.

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

**Avg.** – Regulatory compliance with some MCLs are based on running annual averages of monthly samples.

**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 1 Assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/

or why total coliform bacteria have been found in our water system on multiple occasions.

**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.

**Maximum Contaminant Level (MCL)** – 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.

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

**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.

**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.

**mrem** – Millirems per year (a measure of radiation absorbed by the body).

**n/a** – Not applicable.

**nd** – Not detectable at testing limits.

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

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

**ppb** – Parts per billion.

**ppm** – Parts per million, or milligrams per liter.

**ppt** – Parts per trillion.

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

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

**ug/l** – Micrograms per liter.

## United States EPA Regulations Limit Contaminant Levels

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. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protections for public health.

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



Lake Michigan has been the source of all treated water used by Rolling Meadows residents and businesses since 1986.

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. EPA/CDC 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).

## Source Water Assessment Available for Review at Public Works Department

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. For a copy of this information, please visit our website ([www.cityrm.org](http://www.cityrm.org)), stop by the Public Works Department, or call 847-963-0500.

To view a summary version of the completed Source Water Assessment, including Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, visit the Illinois EPA

Website 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 risks. The very nature of surface water allows contaminants to migrate into the intake with no protection – only dilution. That is the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems), and shoreline erosion.

Chicago's offshore intakes are located at a distance where 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 shore intakes are highly susceptible to storm water runoff, marinas, and shoreline point sources due to the influx of groundwater to the lake.

## 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. They may also come from gas stations, urban storm water runoff, and septic systems.

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

The rushing rapids of Kimball Hill > Park's picturesque waterfall.



## Fats, Oils and Grease Cause Sewage Backups, Overflows

Nearly 50% of all sewage overflows and backups nationwide are caused by fats, oils, and grease (FOG) being poured down the drain. FOG is what remains in your pots and pans after you fry bacon, broil burgers, or bake meat. These substances build up over time when rinsed or poured down your drain/



garbage disposal.

Eventually, they will cause sewers to back up into homes and businesses, and overflow into local streams, rivers, and lakes.

As the agency that responds to sewage overflows, the City of Rolling Meadows' Underground Utilities Division is uniquely positioned to educate businesses and residents on ways to properly dispose of the fats, oils and grease that are found in the foods we use every day. Division employees are trained to respond to, and resolve, backups and overflows caused by FOG.

Preventing backups from occurring in the first place, however, is the ideal solution to this growing problem.

First and foremost, it is important to reduce the amount of FOG that enters the City's sanitary sewage system. Homeowners and businesses should follow these simple steps when disposing of fats, oils and grease:

1. Minimize use of excess cooking oils and grease when cooking, baking or frying.
2. Pour lukewarm cooking grease from pans into a durable, disposable container (such as a frozen juice carton).
3. Use a spatula to scrape as much remaining grease as possible out of the pan, then use a paper towel to wipe the pan clean before washing.
4. Store grease containers in the freezer and reuse, when necessary, until they are filled, then throw them away.

**Residents with questions or concerns may contact the City's Public Works Department at 847-963-0500 or visit [www.cityrm.org](http://www.cityrm.org).**

**Avoid rinsing these "FOGGY" foods down your drain:**

- Meat drippings
- Cooking oil
- Butter
- Shortening
- Margarine
- Baked goods
- Sauces
- Dairy products

## Ignoring 'Silent Leaks' is Like Flushing Money Down the Toilet

A leaking toilet can add significant expense to a homeowner's water bill. Even when there are no visible signs of water leakage, small "silent leaks" may be expanding water flow through the toilet and adding to a home's consumption. A 1/4-inch leak will waste more than 300,000 gallons of water in one month's time – adding thousands of dollars to the water bill.

Homeowners can save significant amounts of money each month by conducting a few simple diagnostic tests:



1. Remove the toilet tank cover and add dye capsules, food coloring or powdered drink mix into the tank water until it turns a deep hue. Wait 30 minutes. The water in the toilet bowl should remain clear. If the dye is seen seeping into the bowl, there is a leak.
2. If a leak is detected, conduct a second test to identify the source: Draw a pencil line on the back inside wall of the tank at the water level, then turn off the water supply to the tank (either under the tank or at the main water shutoff). Wait 20-30 minutes.
  - If the water level remains at the pencil mark, the leak is occurring at the refill valve (located at the left side of the tank).
  - If the water level falls below the pencil mark, the leak is in the flush valve (located in the tanks' center).
3. Replace the faulty valve.

## Summer Sprinkling Ban Conserves Natural Resources

To conserve water, City ordinance prohibits lawn sprinkling May 15th – September 15th, from 12 – 6 p.m.

The ordinance, revised by City Council in 2015 to meet updated conservation standards established by the Illinois Department of Natural resources, also prohibits lawn sprinkling on any two consecutive days.

Per City statute, newly-planted lawns less than three months old may be exempt from this provision.

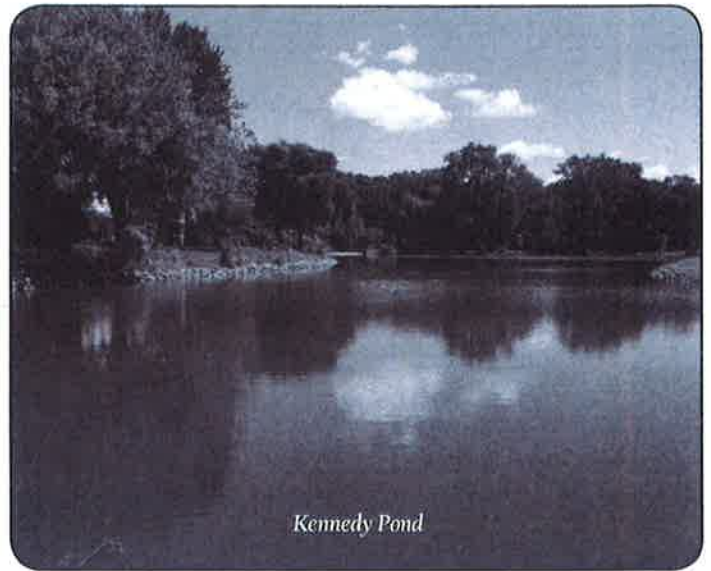




## Questions about Water Quality?

If you have any questions about this report or concerns regarding the water system, please contact Jeff Stewart, Public Works Department, Water Operations, at 847-963-0500 (ext. 7024).

City Council meetings sometimes have water systems-related topics on the agenda. Meetings are open to the public and are held the second and fourth Tuesdays of each month. Visit [www.cityrm.org](http://www.cityrm.org) for confirmed dates and times.



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## EPA Hotline Offers Water Quality Information

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, potential health effects, and ways to lessen the risk of infection are available from the USEPA's Safe Drinking Water Hotline (800-426-4791).

## 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.