



## VILLAGE OF RIVERSIDE ANNUAL DRINKING WATER QUALITY REPORT FOR CALENDAR YEAR 2016

The Village of Riverside is committed to providing the highest quality drinking water to our residents and businesses. Our water is frequently sampled according to strict Environmental Protection Agency (EPA) regulations. This report will inform you about the source, quality, and safety of our drinking water.

### WATER SOURCE

Lake Michigan is the sole source of drinking water for Chicagoans and 118 suburban communities. The water is treated at the Jardine Water Purification Plant and at the South Water Purification Plant located on the lakefront of Lake Michigan in Chicago. The Environmental Protection Agency (EPA) has found that the quality of Lake Michigan water has improved dramatically over the past thirty years. The Village of Riverside purchases surface water from the Village of McCook, which in turn purchases surface water from the City of Chicago.

### WATER QUALITY CONTROL & TESTING

The City of Chicago water treatment facility controls the quality of water supplied to the Village of McCook and the Village of Riverside. Chicago adds chemicals to the water for disinfection purposes, to settle out impurities, and to prevent lead leaching. The City also adds carbon to remove odors and adds fluoride for teeth. The Village of Riverside monitors and adjusts chlorine to maintain safe drinking water on a daily basis. The Village also samples the water for various requirements mandated by the Illinois Environmental Protection Agency on a monthly basis.

### VIOLATIONS

The Village of Riverside is proud to have **met or exceeded** all federal and state standards for drinking water for the calendar year 2016.

### ADDITIONAL INFORMATION

If you should have any questions regarding the attached report or the quality of water in the Village of Riverside, please do not hesitate to contact Public Works Director Ed Bailey at the Village of Riverside (708) 442-3590, or call the Illinois Environmental Protection Agency (IEPA) Safe Drinking Water Hotline at (800) 426-4791. Residents are encouraged to voice concerns, ask questions, and participate in decisions that may affect the quality of the water, etc. at the Village Board meetings held on the 1<sup>st</sup> and 3<sup>rd</sup> Thursdays of each month at 7:00 pm at the Riverside Township Hall. The Village of Riverside has available upon request this year's Consumer Confidence Report (CCR). The CCR includes basic information on the source(s) of your drinking water, the levels of any contaminants that were detected in the water during 2016, and compliance with other drinking water rules, as well as some educational materials. To obtain a free copy of the report, please call Maribeth Reimer at 708-442-3590 or you may pick the report up at Village Hall, 27 Riverside Road or Public Works, 3860 Columbus Blvd.

## Riverside (IL #0312670) 2016 Regulated Contaminants Detected

### Copper and Lead

Collection Date: 6-19-2014

Definitions: 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.

Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Violation	Likely Source Of Contamination
1.3 ppm	1.3 ppm	0.22 ppm	0	0	15 ppb	5.2 ppb	2	No	Corrosion of household plumbing systems; Erosion of natural deposits

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 Village of Riverside is responsible for providing 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 at (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

### Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation. Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology. 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. mg/l: milligrams per litre or parts per million - or one ounce in 7,350 gallons of water. ug/l: micrograms per litre or parts per billion - or one ounce in 7,350,000 gallons of water. NA: not applicable. Avg: Regulatory compliance with some MCLs is based on running annual average of monthly samples. 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 which there is no known or expected risk to health. MRDLGs allow for a margin of safety.

### Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	12-31-16	0.8	0.6 – 1	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Total Haloacetic Acids (HAA5)	2016	16	10.9 – 16	No goal for the total	60	ppb	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]	2016	43	19.56 – 43.2	No goal for the total	80	ppb	No	By-product of drinking water chlorination

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. 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.

### 2016 Violation Summary Table:

<b>The Village of Riverside had no violations in 2016.</b>
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## Chicago (#IL0316000) 2016 Regulated Contaminants Detected

### Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source Of Contamination
0	5% of monthly samples are positive	0.9		0	No	Naturally present in the environment.

### Lead and Copper

Date Sampled: 9/20/15

Definitions:

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. ALGs allow for a margin of safety.

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	# Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	# Sites Over Copper AL	Violation	Likely Source of Contamination
0	15 ppb	9.11 ppb	3	1.3 ppm	1.3 ppm	0.0782 ppm	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

### Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	12-31-16	1	1-1	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes.
Haloacetic Acids (HAA5)*	2016	14	2.5 – 25.9	No goal for the total	60	ppb	No	By-product of drinking water chlorination.
Total Trihalomethanes (TTHm)*	2016	26	10.1 – 45.4	No goal for the total	80	ppb	No	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.

## Regulated Contaminants

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Barium	2016	0.0206	0.0196 - 0.0206	2	2	ppm	No	Discharge of drilling wastes; Discharges from Metal refineries; Erosion of natural deposits.
Fluoride	2016	0.7	0.652 - 0.657	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2016	0.462	0.405 - 0.462	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	2016	8.92	8.49 – 8.92			ppm	No	Erosion from naturally occurring deposits; used in water softener regeneration.

## Radioactive Contaminants

	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Combined Radium 226/228	2-11-2014	0.84	0.5 - 0.84	0	5	pCi/L	No	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2014	6.6	6.1 – 6.6	0	15	pCi/L	No	Erosion of natural deposits.

## Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source Of Contaminant
Highest Single Measurement	1 NTU	0.16 NTU	No	Soil Runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	No	Soil Runoff.

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

## **2016 Chicago Violation Summary Table**

The City of Chicago is pleased to announce that no monitoring, reporting, treatment, technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2016.

## DEFINITION OF TERMS/TABLE FOOTNOTES

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| <ul style="list-style-type: none"> <li>• <b>MCLG – Maximum Contaminant Level Goal</b> – The level of a contaminant in drinking water below which there is no known or expected risk to health.</li> <li>• <b>MCL – Maximum Contaminant Level</b> – The highest level of a contaminant that is allowed in drinking water. MCL is set as close to the MCL Goals feasible using the best available treatment technology.</li> <li>• <b>TT – Treatment Technique</b> – A required process intended to reduce the level of a contaminant in drinking water.</li> <li>• <b>Level Found</b> – Represents an average of sample result data collected during the calendar year.</li> <li>• <b>Range of Detection</b> – Represents a range of individual sample results from lowest to highest in a calendar year</li> <li>• <b>Sodium</b> – There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials concerned about sodium intake due to dietary precautions. If the level were greater than 20mg/L, people on a sodium-restricted diet should consult a physician.</li> <li>• <b>Fluoride</b> – Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Health recommends an optimal fluoride range of 0.9 mg/l to 1.2mg/l.</li> <li>• <b>%&lt;0.5 NTU</b> – Percent samples less than 0.5 NTU</li> <li>• <b>ppm</b> – Parts per million or milligrams per liter</li> <li>• <b>ppb</b> – Parts per billion or micrograms per liter</li> <li>• <b>NTU</b> – Nephelometric Turbidity Units</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Turbidity</b> – A measure of the cloudiness of water. Turbidity is monitored because it is a good indicator of water quality and the effectiveness of the treatment process.</li> <li>• <b>AL – Action Level</b> – The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.</li> <li>• <b>Lead</b> – Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).</li> <li>• <b>Unregulated Contamination</b> – A maximum contaminant level (MCL) for this contaminant has not been established by either the state or federal regulations, nor has mandatory health effects language. 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.</li> <li>• <b>n/a</b> – not applicable</li> <li>• <b>nd</b> – not detected</li> <li>• <b>% pos/mo</b> – Percentage of positive samples per month.</li> </ul> |
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Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contamination. The presence of contaminants does not necessarily indicate that water poses a health risk. Because water is the universal solvent, many materials are easily dissolved upon contact. At low levels, the contaminants generally are not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in nearly all cases, would not provide greater protection of health. More information about contaminants and their potential health effects can be obtained by calling the EPA’s Safe Drinking Water Hotline (800) 426-4791. Some people may be more vulnerable to contaminants in the drinking water than the general population. Immune compromised persons such as persons with cancer and/or undergoing chemotherapy, organ transplant recipients, people with HIV/AIDS or other immune system disorders, some elderly people, 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 EPA’s Safe Drinking Water Hotline (800) 426-4791.

The sources of drinking water (both tap 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 dissolve naturally occurring minerals, and pick up substances resulting from the presence of animals or human activity. Possible contaminants consist of **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 may be naturally occurring or the 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 byproducts of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff and specific **Radioactive contaminants**, which may be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, 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.

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel free to attend any one of our regularly scheduled Village Board meetings. The source water assessment has been completed by the Illinois EPA. If you would like a copy of this information, please stop by the Village Hall or call the Public Works Department at 708-442-3590. To view a summary version of the completed Water Source Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

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 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 waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising 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.