ANNUAL DRINKING WATER QUALITY REPORT RIVERDALE, IL 0312580 Annual Water Quality Report For The Period of January 1 to December 31, 2018

This report is intended to provide you with important information about your drinking water and the efforts made by the RIVERDALE water system to provide safe drinking water. The source of drinking water used by RIVERDALE is Purchased Surface Water

For more information regarding this report, contact:

Name: Jerome Russell Phone: 708-896-7601

Este informe contiene información muy importante sobre el agua que usted bebe. Traduzca10 0 hable con alguien que 10

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Source of Drinking Water

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 dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pickup substances resulting from the presence of animals or 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 salt and metals, which can be naturally-occurring or 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, and can also come from gas stations, urban storm water 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 EPA's Safe Drinking Water Hotline (800) 426-4791.

In order to ensure that tap water is safe to drink, EPA prescribed regulations which limit the amount of certain contaminates 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. Immune-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. 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).

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. We 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 for 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.

Source Water Information

Source Water Name

CC 01-PUMP STAT 1 AT 13742 MICHIGANFF IL3016000 TP02: LAKE

CC 02-PUMP STATION 2 130TH AND FF IL 0316000 TP02: LAKE

SW

SW

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly schedule meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at 841-2202. To view a summary version of the completed Source Water 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 shorelines 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.

2018 Regulated Contaminants Detected

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is not known or expected risk to health. ALGs allow for a margin of safety.

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

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Lead	2017	0	15	10.00	1	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Water Quality Test Results

Maximum Contaminant Level Goal or 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 or 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 Residual Disinfectant Level Goal or MRDLG:

The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do no reflect the benefits of the use 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.

The following tables contain scientific terms and measures, some of which may require

explanation.

Definitions:

ppb:

micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

not applicable.

n/a: Avg:

Regulatory compliance with some MCLs are based on running annual average of monthly

samples.

ppm:

milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Regulated Contaminants

Disinfectants and Disinfection by- products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination	
Chlorine	12/31/2018	0.8	0.7 - 0.8	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.	
Haloacetic Acids (HAA5) *	2018	16	10.3 - 24.4	No gaol for the total	60	ppb	N	By-product of drinking water disinfection.	
Total Trihalomethanes (TTHM)	2018	30	16.1 - 41.8	No gaol for the total	80	ppb	N	By-product of drinking water disinfection.	

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DATA TABULATED BY CHICAGO DEPARTMENT OF WATER MANAGEMENT

2018 Water Quality Data

-Definition of Terms-

<u>Maximum Contaminant Level Goal (MCLG):</u> 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.

<u>Maximum Contaminant Level (MCL):</u> 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.

Highest Level Detected: This column represents the highest single sample reading of a contaminant of all the samples collected in 2009.

<u>Range of Detections:</u> This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

<u>Date of Sample:</u> If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

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

ND: Contaminant Not Detected at or above the reporting or testing limit.

N/A: Not applicable

Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
Turbidity Data TURBIDITY (NTU/Lowest Monthly %≤0.3 NTU) Soil runoff.	N/A	TT(Limit: 95%≤0.3 NTU)	(Lowest Monthly %) 100.0%	100.0% - 100.0%		
TURBIDITY (NTU/Highest Single Measurement) Soil runoff.	N/A	TT (Limit 1NTU)	0.19	N/A		
Inorganic Contaminants				-		
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.0214	0.0203 - 0.0214		
NITRATE (AS NITROGEN) (ppm) Runoff from fertilizer use: Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.42	0.31 - 0.42		÷
TOTAL NITRATE & NITRITE (AS NITROGEN) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.42	0.31 - 0.42		

Total Organic Carbon

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 IEPA

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
Unregulated Contaminants			1 200		16	_ 8
SULFATE (ppm) Erosion of naturally occurring deposits.	N/A	N/A	27.6	26.3 - 27.6		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	N/A	N/A	8.89	8.14 - 8.89		
State Regulated Contaminants	1	,	9			
FLUORIDE (ppm) Water additive which promotes strong teeth.	. 4	4	0.86	0.64 - 0.86		
Radioactive Contaminants						8
COMBINED RADIUM (226/228) (pCi/L) Decay of natural and man-made deposits.	0	5	0.84	0.50 - 0.84		2/11/2014
GROSS ALPHA excluding radon and uranium (pCi/L) Decay of natural and man-made deposits.	0	15	6.6	6.1 - 6.6		2/11/2014

UCMR3 Compliance Reporting

In compliance with the Unregulated Contaminant Monitoring Rule 3 (UCMR3) as required by the EPA, the City of Chicago has monitored for 28 contaminants suspected to be present in drinking water, but that do not have health-based standards set under the Safe drinking Water Act. The monitoring results were reported to the EPA. The list of UCMR3 contaminants that we have monitored included volatile organic chemicals, metals, perfluorinated compounds, hormones, 1,4-dioxane and chlorate. The contaminants that were detected in this monitoring program are listed below.

CHROMIUM (ppb)	100	100	0.3	0.3 - 0.3	
Naturally-occurring element; used in making steel and other alloys MOLYBDENUM (ppb)	NA	NA	1.1	1.0 - 1.1	
Naturally-occurring element found in ores and present plants, animals and bacteria; commonly used form molybdenum trioxide STRONTIUM (ppb) Naturally-occurring element has been used in cathode-ray tube TVs	NA	NA	120	110 - 120	
to block x-ray emissions VANADIUM (ppb)	NA	NA	0.2	0.2 - 0.2	
Naturally-occurring metal; vanadium pentoxide is used as a catalyst and a chemical intermediate CHROMIUM-6 or HEXAVALENT CHROMIUM (ppb) Naturally-occurring element; used in making steel and alloys	NA	NA	0.19	0.18 - 0.19	

- Unit of Measurement -

ppm: Parts per million, or milligrams per liter ppb: Parts per billion, or micrograms per liter

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

%≤0.3 NTU: Percent samples less than or equal to 0.3 NTU pCi/L: Picocuries per liter, used to measure radioactivity

Water Quality Data Table Footnotes

TURBIDITY

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

UNREGULATED CONTAMINANTS

A maximum contaminant level (MCL) for this contaminant has not been established by either 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.

FLUORIDE

Fluoride is 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.

SODIUM

There is not a 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.

CITY OF CHICAGO, DEPARTMENT OF WATER MANAGEMENT SOURCE WATER ASSESSMENT SUMMARY FOR THE 2018 CONSUMER CONFIDENCE REPORT (CCR)

Source Water Location

The City of Chicago utilizes Lake Michigan as its source water via two water treatment plants. The Jardine Water Purification Plant serves the northern areas of the City and suburbs, while the South Water Purification Plant serves the southern areas of the City and suburbs. Lake Michigan is the only Great Lake that is entirely contained within the United States. It borders Illinois, Indiana, Michigan, and Wisconsin, and is the second largest Great lake by volume with 1,180 cubic miles of water and third largest by area.

Source Water Assessment Summary

The Illinois EPA implemented a Source Water Assessment Program-(SWAP) to assist with watershed protection of public drinking water supplies. The SWAP inventories potential sources of contamination and determined the susceptibility of the source water to contamination. The Illinois EPA has completed the Source Water Assessment Program for our supply. Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

Susceptibility to Contamination

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 of 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.

Further information on our community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at 312-744-6635.

2018 VOLUNTARY MONITORING

The City of Chicago has continued monitoring for Cryptosporidium, Giardia and E. coli in its source water as part of its water quality program. To date, Cryptosporidium has not been detected in these samples, but Giardia was detected in 2010 in one raw lake water sample collected in September 2010. Treatment processes have been optimized to provide effective barriers for removal of Cryptosporidium oocysts and Giardia cysts in the source water, effectively removing these organisms in the treatment process. By maintaining low turbidity through the removal of particles from the water, the possibility of Cryptosporidium and Giardia organisms getting into the drinking water system is greatly reduced. Also, in compliance with Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) Round 2, the City of Chicago has started the 24 months long monitoring program in April 2015, collecting samples from its source water once per month to monitor for Cryptosporidium, Giardia, E. coli and turbidity. Cryptosporidium and Giardia were not detected in these samples.

In 2017, CDWM has also continued monitoring for hexavalent chromium, also known as chromium-6. USEPA has not yet established a standard for chromium-6, a contaminant of concern which has both natural and industrial sources. Please address any questions or concerns to DWM's Water Quality Division at 312-742-7499. Data reports on the monitoring program for chromium-6 are posted on the City's website which can be accessed at the following address below: http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_Chicago_emergincontaminantstudy.html

2018 Violations Summary Table

We are pleased to announce that no monitoring, reporting, treatment technique, maximum residual disinfectant level, or maximum contaminant level violations were recorded during 2018.



VILLAGE OF RIVERDALE 2018 CONSUMER CONFIDENCE REPORT

Water Conservation

One of the biggest offenders in the home for water waste is the toilet, accounting for approximately 26.7% of the water used daily inside the house. By switching to the high-efficiency models of toilets, homeowners can make a huge dent in this number. These toilets are designed, tested and proven to take care of business with very little water. Some models actually use less than one gallon per flush.

Showers are another area in the home where water is wasted, responsible for about 16.8% of household daily water usage. Switching your shower head to a high efficiency model and shortening the time you are in the shower can help reduce water usage.

How about that dripping faucet you keep meaning to fix? Faucet use adds up to 15.7% of a household's daily water usage. Did you know that simply by installing aerators on your bathroom and kitchen faucets can save you up to a gallon of water per minute, per faucet?

In addition to those obvious sink leaks, there are less obvious leaks lurking in your home, wasting your precious water. The easiest of these leaks to detect on your own is a leaky flapper in your toilet. Here's a test: open the tank of your toilet and put in a few drops of food coloring. Replace the tank lid and wait a good 5-10 minutes or so. When the time is up, check the bowl of the toilet. If any color has made its way down into the bowl, you have a leaky flapper. Unfortunately, this means that your toilet is wasting water. Fortunately, replacing the flapper on your toilet is an easy fix. Simply take the model name and date of manufacture of your toilet (stamped inside the tank) to your local hardware supply store and they will help you find a replacement flapper.

