

2021  
ANNUAL WATER  
QUALITY  
REPORT

REPORTING YEAR 2020



*Presented By*  
**Village Of Schaumburg**

## Quality First

Once again, we are pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2020. As in years past, we are committed to delivering the best-quality drinking water possible. To that end, we remain vigilant in meeting the challenges of new regulations, source water protection, water conservation, and community outreach and education while continuing to serve the needs of all our water users. Thank you for allowing us the opportunity to serve you and your family.

We encourage you to share your thoughts with us on the information contained in this report. After all, well-informed customers are our best allies.

You may notice that most of the wording in this year's report is identical to last year's report. That is because the wording is mandated by the EPA and must be put in the report every year. If you have any questions about this mandatory language or this report, please contact Brian Wagner, Utility Superintendent at the Engineering and Public Works Department, at (847) 895-7100.

## Source Water Assessment

The Illinois EPA considers all surface water sources of community water supplies 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 such 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.

## Lead in Home Plumbing

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 are responsible for providing high-quality drinking water, but 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 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 [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

## Water Stress

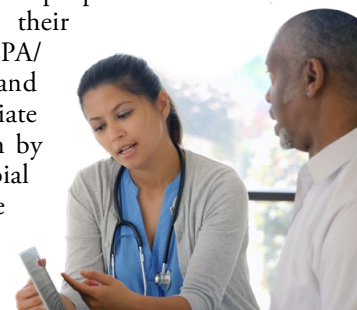
Water stress occurs when the demand for water exceeds the amount available during a certain period or when poor water quality restricts its use. Water stress causes deterioration of fresh water resources in terms of quantity (aquifer over-exploitation, dry rivers, etc.) and quality (eutrophication, organic matter pollution, saline intrusion, etc.).

According to the World Resource Institute ([www.wri.org](http://www.wri.org)), the Middle East and North Africa remain the most water stressed regions on earth. However, several states in the western half of the U.S. are similarly experiencing extremely high levels of water stress from overuse. It is clear that even in countries with low overall water stress, individual communities within a country may still be experiencing extremely stressed conditions. For example, South Africa and the United States rank #48 and #71 on WRI's list, respectively, yet the Western Cape (the state home to Cape Town) and New Mexico experience extremely high stress levels.

There are undeniably worrying trends in water quality. But by taking action now and investing in better management, we can solve water issues before it is too late.

## Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health-care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



## Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water 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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may 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 may also come from gas stations, urban storm-water runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

## Public Meetings

The Village Of Schaumburg is committed to providing you with a water supply of the highest possible quality and the information necessary to keep you an informed consumer. If you would like to learn more, please feel welcome to attend any of the regularly scheduled meetings of the Engineering and Public Works Committee. Please contact Brian Wagner at (847) 895-7100 for information on these meetings, or view the Village Of Schaumburg website at [www.ci.schaumburg.il.us/](http://www.ci.schaumburg.il.us/).

## Information on the Internet

The U.S. EPA (<https://goo.gl/TFAMKc>) and the Centers for Disease Control and Prevention ([www.cdc.gov](http://www.cdc.gov)) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Illinois Environmental Protection Agency has a Web site (<http://bit.ly/3c8YPZt>) that provides complete and current information on water issues in Illinois, including valuable information about our watershed.

## Source Water Description

One hundred percent of the water used by the Village Of Schaumburg comes from Lake Michigan. The city of Chicago utilizes Lake Michigan as its sole source water via two water treatment plants. The Jardine Water Purification Plant serves the northern areas of the city and suburbs, including Schaumburg, 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 is the third largest by area. Water from Chicago is pumped to Schaumburg by the Northwest Suburban Municipal Joint Action Water Agency (NSMJAWA). Water is delivered to the village's water system at four locations. We then re-pump the water to our 26,000 customers through a water system that consists of over 285 miles of water main, 4,500 fire hydrants, 9 reservoirs, and 7 pumping stations.



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. And, the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The State recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the U.S. EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if U.S. EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminants Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

Note: Village backup well raw water data is available upon request.

The percentage of total organic carbon (TOC) removal was measured each month, and the system met all TOC removal requirements set by Illinois EPA.

REGULATED SUBSTANCES									
				Village Of Schaumburg		City of Chicago			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Barium</b> (ppm)	2020	2	2	NA	NA	0.0201	0.0198–0.0201	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Chlorine</b> (ppm)	2020	[4]	[4]	1	1–1	NA	NA	No	Water additive used to control microbes
<b>Combined Radium</b> (pCi/L)	2020	5	0	NA	NA	0.95 <sup>1</sup>	0.83–0.95	No	Decay of natural and man-made deposits
<b>Fluoride</b> (ppm)	2020	4	4	NA	NA	0.75 <sup>2</sup>	0.65–0.75	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories
<b>Gross Alpha</b> (pCi/L)	2020	15	0	NA	NA	3.1 <sup>3</sup>	2.8–3.1	No	Decay of natural and man-made deposits
<b>Haloacetic Acids</b> [HAAs] (ppb)	2020	60	NA	29	15.5–27.6	NA	NA	No	By-product of drinking water disinfection
<b>Nitrate</b> (ppm)	2020	10	10	NA	NA	0.42	0.35–0.42	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>TTHMs [Total Trihalomethanes]</b> (ppb)	2020	80	NA	39	16.61–51.5	NA	NA	No	By-product of drinking water disinfection
<b>Total Coliform Bacteria</b> (positive samples)	2020	TT	NA	0	NA	NA	NA	No	Naturally present in the environment
<b>Total Nitrate + Nitrite</b> (ppm)	2020	10	10	NA	NA	0.42	0.35–0.42	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
<b>Turbidity</b> (NTU)	2020	TT	NA	NA	NA	0.16 <sup>4</sup>	NA	No	Soil runoff
<b>Turbidity</b> (lowest monthly percent of samples meeting limit)	2020	TT = 95% of samples meet the limit	NA	NA	NA	100	NA	No	Soil runoff

### Tap Water Samples Collected for Copper and Lead Analyses from Sample Sites throughout the Community

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2020	1.3	1.3	0	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2020	15	0	0	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

### UNREGULATED CONTAMINANT MONITORING RULE PART 4 (UCMR4) - VILLAGE OF SCHAUMBURG <sup>5</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
HAA6Br (ppb)	2020	12	7.8–12	By-product of drinking water disinfection
HAA9 (ppb)	2020	32	14–32	By-product of drinking water disinfection
Quinoline (ppb)	2020	0.032	0.032–0.032	Naturally occurring quinoline is found in coal and peat

### UNREGULATED AND OTHER SUBSTANCES - CITY OF CHICAGO <sup>6</sup>

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2020	9.55	8.73–9.55	Erosion of naturally occurring deposits; Used as water softener
Sulfate (ppm)	2020	27.8	27.5–27.8	Erosion of naturally occurring deposits

<sup>1</sup> (226/228)

<sup>2</sup> Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.7 mg/L with a range of 0.6 mg/L to 0.8 mg/L.

<sup>3</sup> Excluding radon and uranium.

<sup>4</sup> Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of water quality, the effectiveness of the filtration system and disinfectants.

<sup>5</sup> 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 of unregulated contaminant monitoring is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

<sup>6</sup> There is no state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials who have concerns about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

**AL (Action Level):** The concentration of a contaminant that triggers treatment or other required actions by the water supply.

**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.

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

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

**NA:** Not applicable.

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

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

