# ANNUAL DRINKING WATER QUALITY REPORT VILLAGE OF GLENDALE HEIGHTS For the period of January 1, 2021 to December 31, 2021

This report is intended to provide you with important information about your drinking water and the efforts made by the Village of Glendale Heights Water Division to provide safe drinking water. The source of drinking water distributed by the Village is purchased from the DuPage Water Commission.

For more information regarding this report, contact: Name: <u>Roman Corsini, Utilities Division Manager- Facility # IL 0430400</u> Phone: <u>(630) 260 6040</u>

# We are pleased to report that The Village of Glendale Heights' drinking water had no violations or exceeded any other water quality standard. No drinking water quality violations were recorded during 2021.

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 scheduled Village Board meetings every first and third Thursday of the month. The meetings are held at Village Hall, 300 Civic Center Plaza, and begin at 7:30 p.m. You may also wish to attend the Du Page Water Commission meetings. For information on when their meetings are scheduled, please call (630) 834 0100. 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 Public Works at 1615 Glen Ellyn Rd. or call our Utilities Division Manager at (630) 260 6040. To view a summary version of the completed Source Water Assessments including Importance of Source Water; Susceptible 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.p1

# Source of Drinking Water

Lake Michigan water is supplied to the DuPage Water Commission from the City of Chicago. The City does all water filtration and treatment. The DuPage Water Commission adds chlorine and delivers the water through a series of water mains and storage tanks. The Village of Glendale Heights then delivers the water through several pump stations, storage tanks and water mains. The Village does not add chemicals to the water, but has the capabilities to do so.

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 the mandatory treatment for all surface water supplies in Illinois. Chicago's off shore 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, there by concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water run-off, marinas and shoreline point sources due to the influx of ground water to the lake.

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 and, in some cases, radioactive material, and can pick up 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 salts 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 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 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 1 (800) 426 4791.

# CITY OF CHICAGO, DEPARTMENT OF WATER MANAGEMENT SOURCE WATER ASSESSMENT SUMMARY FOR THE 2021 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 Sawyer 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.

# **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 the our community water supply's Source Water Assessment Program is available by calling DWM at 312-742-2460 or by going online at http://dataservices.epa.illinois.gov/swap/factsheet.aspx.

# **2021 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. No Cryptosporidium or Giardia was detected in source water samples collected in 2021. 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 such organisms getting into the drinking water system is greatly reduced.

In 2021, 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 312-744-8190. 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:

https://www.chicago.gov/city/en/depts/water/supp\_info/water\_quality\_resultsandreports.html

# 2021 WATER QUALITY DATA DATA TABULATED BY CHICAGO DEPARTMENT OF WATER MANAGEMNT 0316000 CHICAGO

#### -Definition of Terms-

# Maximum Contaminant Level Goal (MCLG):

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

#### 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.

#### **Highest Level Detected:**

This column represents the highest single sample reading of a contaminant of all samples collected in 2021.

#### **Range of Detections:**

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

#### **Date of Sample:**

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.

#### <u>N/A:</u> 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%≤ 0.3NTU)	(Lowest Monthly %) 100.0%	100.0% - 100.0%		
Turbidity (NTU/Highest Single Measurement) Soil runoff	N/A	TT (Limit 1 NTU)	0.20	N/A		
INORGANIC CONTAMINANTS						
<b>Barium (ppm)</b> Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	2	2	0.0203	0.0200 - 0.0203		
Nitrate (As Nitrogen) (ppm) Runoff from fertilizer use; Leaching from septic tanks, Sewage, Erosion of natural deposits	10	10	0.28	0.28 - 0.28		
Total Nitrate & Nitrite (As Nitrogen) (ppm)Runoff form fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits	10	10	0.28	0.28 - 0.28		

# **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 the IEPA

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Highest Level Detected	Range of Detections	Violation	Date of Sample
UNREGULATED CONTAMINANTS						
Sulfate (ppm) Erosion of naturally occurring deposits	N/A	N/A	27.4	26.9 - 27.4		
<b>Sodium (ppm)</b> Erosion of naturally occurring deposits; Used as water softener	N/A	N/A	9.99	9.79 – 9.99		
STATE REGULATED CONTAMINANTS	<u>5</u>					
Fluoride (ppm) Water additive which promotes strong teeth	4	4	0.77	0.65 - 0.77		
RADIOACTIVE CONTAMINANTS						
<b>Combined Radium (226/228)</b> (pCi/L) Decay of natural and man-made deposits.	0	5	0.95	0.83 - 0.95		02-04-2020
Gross Alpha excluding radon and uranium (pCi/L) Decay of natural and man-made deposits.	0	15	3.1	2.8-3.1		02-04-2020

#### 2021 Water Quality Data Table Footnotes

# <u>Turbidity</u>

# 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.

#### <u>Sodium</u>

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.

#### **Fluoride**

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.

#### **Unit of Measurement**

ppm ppb	Parts per million, or milligrams per liter Parts per billion, or micrograms per liter	%≤0.3NTU	Percent of samples less than or equal to 0.3 NTU
NTU	Nephelometric Turbidity Unit, used to measure cloudiness in drinking water	pCi/L	Picocuries per liter, used to measure radioactivity

#### Village of Glendale Heights 2021 Water Quality Data

# NO DRINKING WATER QUALITY VIOLATIONS WERE RECORDED DURING 2021

#### **Regulated Contaminants Detected**

Contaminant	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
Coliform Bacteria	0	5% of monthly samples are	2.3	-	0	N	Naturally present in the environment
Ductoria	Ů	positive			J		

#### Lead and Copper

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 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 or at http:// www.epa.gov/safewater/lead.

#### **Definitions:**

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.

Action Level: 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
Copper	2020	1.3	1.3	0.135	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2020	0	15	0	0	ppb	Ν	Corrosion of household plumbing systems; Erosion of natural deposits.

#### Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Avg: Regulatory compliance with some MCL's are based on running annual average of monthly samples.

Level 1 Assessment: A Level 1 assessment is 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 Level 2 assessment is 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 have been found in our water system on multiple occasions.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water, which there is no known or expected risk to health. MCLG's allow for a margin of safety.

Maximum Residual Disinfectant Level or MRDL: 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.

Maximum Residual Disinfectant Level Goal or MRDLG: The level of a contaminant in drinking water, which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

na: Not Applicable

mrem: millirems per year (a measure of radiation absorbed by the body)

**ppb:** micrograms per liter or parts per billion – or one ounce in 7,350,000 gallons of water.

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

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

#### **Regulated Contaminants**

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2021	1	1 - 1	MRDLG = 4	MRDL=4	ppm	Ν	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2021	27.3	10.3 – 27.3	No goal for the total	60	ppb	Ν	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2021	55.3	15.9 - 55.3	No goal for the total	80	ppb	Ν	By-product of drinking water disinfection.

# GLENDALE HEIGHTS STAND-BY WELLS

The Village of Glendale Heights' Stand-by Wells have been maintained in accordance with IEPA testing requirements and standards and are for emergency purposes only. The four Well sites are operated and tested without supplementing the Lake Michigan Water that we purchase and distribute from the DuPage Water Commission.

Inorganic Compounds are tests performed for stand-by wells, which are not connected to the distribution system and are for emergency purposes only.

\*Arsenic –While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPAs standard balances the current understanding of arsenics possible health effects against the cost of removing arsenic from drinking water. The EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

# INORGANIC CONTAMINANTS

Element	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic*	4/29/2020	4.37	4.37 - 4.37	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronic production wastes.
Barium	4/29/2020	0.0319	0.0319 - 0.0319	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	4/29/2020	5.93	5.93 - 5.93	100	100	ppb	Ν	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride	4/29/2020	0.46	0.46 - 0.46	4	4.0	ppm	Ν	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.

Iron	4/29/2020	0.866	0.866 – 0.866	-	1.0	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium	4/29/2020	45.4	45.4 - 45.4	-	-	ppm	Ν	Erosion from naturally occurring deposits: used in water softener regeneration.
Sulfate	2017	154	15.6 - 154	250	250	ppm	Ν	Sulfate is a substance that occurs naturally in drinking water.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	8/13/2020	1.129	1.129 – 1.129	0	5	pCi/L	Ν	Erosion of natural deposits.
Gross Alpha excluding radon and uranium	8/13/2020	2.69	0.186 – 2.69	0	15	pCi/L	Ν	Erosion of natural deposits.

# AS REPORTED BY THE DUPAGE WATER COMMISSION - (630) 834-0100 2021 Regulated Contaminants Detected

Maximum Contaminant Level Goal	Total Coli form Maximum Contaminant Level	Highest No. of Positive	Fecal Coli form or E. Coli Maximum Contaminant Level	Total No. of Positive E.Coli or Fecal Coli form Samples	Violation	Likely Source of Contamination
0	0 positive monthly sample	0	Fecal Coliform or E. Coli MCL: A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. Coli positive	0	No	Naturally present in the environment

# **Regulated Contaminants**

**Coliform Bacteria** 

Disinfectants & Disinfection By- Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely source Of Contamination
Chlorine	4/17/2021	1.50	0.91 - 1.50	4	4	ppm	No	Water additive used to control microbes
Total Haloacetic Acids (HAA5)	2021	19.9	14.2 - 19.9	N/A	60	ppb	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes]	2021	28.0	21.1 - 28.0	N/A	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.

#### Information on Lead

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. DuPage Water Commission is responsible for providing high 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 or at:

#### http://www.epa.gov/safewater/lead.

#### Educational statements and conservation strategies for surface water may be obtained at

http://www.preservingeverydrop.org/

**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. MCL's are set close to the MCLGs as feasible using the best available treatment technology. MCLG (Maximum Contaminant Level Goal): 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. AL (Action Level): The concentration of a contaminant which, if exceeded triggers treatment or other requirements which a water system must follow. ppm: parts per million, ppb: parts per billion, ppt: parts per trillion, pCi/l: picoCuries per liter (measurement of radioactivity)

#### **2021 Regulated Contaminants Detected**

#### 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. MCL's 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. MCLG's 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 liter or parts per billion – or one ounce in 7,350,000 gallons of water.

na: not applicable

Avg: Regulatory compliance with some MCL's are 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. MRDLG's allow for a margin of safety.