



VILLAGE OF BLOOMINGDALE DRINKING WATER QUALITY REPORT (From January 1, 2021 to December 31, 2021)

This report provides important information about drinking water quality and efforts made by the **Village of Bloomingdale** to provide safe drinking water. Drinking water supplied by the Village of Bloomingdale is purchased from the **DuPage Water Commission (DWC)** which in turn is supplied by the **City of Chicago**, who sources the water from Lake Michigan. For more information regarding this report, contact:

Ken Lindhorn
Utilities Distribution / Water Production Supervisor
Phone: (630) 671-5833
lindhornk@vil.bloomington.il.us

Sources of Drinking Water

Rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells are all sources of drinking water including both tap water and bottled water. Water dissolves naturally occurring minerals; picks up substances resulting from the presence of animals or from human activity; and, in some cases, absorbs radioactive material as it passes over land surfaces or through the ground. Possible contaminants consist of:

Microbial contaminants – caused by viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock discharges and wildlife.

Inorganic contaminants - such as naturally occurring salts and metals; resulting from urban storm water runoff, industrial, or domestic wastewater discharges; oil and gas production; mining or farming.

Pesticides and herbicides – from agriculture and residential uses and storm water runoff.

Organic chemical contaminants (including synthetic and volatile organic chemicals) – by-products of industrial processes and petroleum production; runoff from gas stations, urban storm water, and septic systems.

Radioactive contaminants – naturally occurring or the result of oil and gas production and mining activities.

Contaminants in Drinking Water

Drinking water, including bottled water, should 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 can be obtained by calling the United States Environmental Protection Agency (USEPA) Safe Drinking Water Hotline at (800) 426-4791.

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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline at (800) 426-4791.



In the interest of public health and safety, the USEPA prescribes regulations that limit the amount of certain contaminants in water supplied by public water systems. The Food and Drug Administration (FDA) establishes and regulates contaminant limits in bottled water, which must provide the same protection for public health.

Lead in Drinking Water

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 older water service lines, fittings, soldering materials, water meters and other plumbing fixtures. The Village of Bloomingdale is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. The potential for lead exposure can be minimized by running water from the 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 to minimize exposure is available from the USEPA Safe Drinking Water Hotline at (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

(See Bloomingdale Statement on Lead in Drinking Water on PAGE 5)

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 determines the susceptibility of the source water to contamination.

Source Water Location

The City of Chicago draws from Lake Michigan as its source water. The water is treated at one of two (2) water treatment plants. The **Jardine Water Purification Plant** serves the northern areas of Chicago and suburbs which includes the water supplied to the DuPage Water Commission and thereby the **Village of Bloomingdale**. Lake Michigan is the only Great Lake that is entirely contained within the United States and borders Illinois, Indiana, Michigan and Wisconsin. It is the second largest Great Lake by volume with 1,180 cubic miles of water and third largest by area.



Susceptibility to Contamination

The Illinois EPA (IEPA) considers all surface water sources of community water supplies to be susceptible to potential pollution. The very nature of surface water allows contaminants to migrate into treatment system intakes with no protection. For this reason IEPA mandates treatment for all surface water supplies in Illinois. Chicago's offshore intakes, known as "cribs", are located at such a distance that shoreline impacts are not usually considered a factor influencing 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 intake crib locations may attract waterfowl, such as gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits potentially compromising the source water quality. Conversely, the shore intakes are very susceptible to storm water runoff, activities in marinas, and shoreline non-point sources due to the influx of groundwater. Further information on the City of Chicago community water supply's Source Water Assessment Program is available by calling the City of Chicago, Department of Water Management at (312) 742-2406.

Source Water Assessment Summary

The source assessment for the Village's supply has been completed by Illinois EPA. To view a summary version of the completed Source Water Assessment, visit the Illinois EPA website at <http://dataservices.epa.illinois.gov/swap/factsheet.aspx> and select the City of Chicago. The Village of Bloomingdale Source Water Assessment is for the emergency wells only.

2021 Volunteer 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 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 City of Chicago Department of Water Management's Water Quality Division at (312) 744-8190. Data reports on the monitoring program for chromium-6 can be accessed at the following address: http://www.cityofchicago.org/city/en/depts/water/supp_info/water_quality_resultsandreports/city_of_chicago_emergincontaminantstudy.html

Bloomingdale Emergency Wells

The Village of Bloomingdale maintains two emergency wells but has not used these to supply the water system since 1992. Wells are maintained and sampled pursuant to IEPA requirements, including reporting sample results to IEPA, to be used only in the event of an emergency that causes the loss of the Lake Michigan supply from DuPage Water Commission. Sample data for the wells is available upon request from the Public Works Department at (630) 671-5800.

2021 Water Quality Tables

This table includes contaminants detected in samples collected by the City of Chicago or the Village of Bloomingdale between January 1, 2021 and December 31, 2021 unless otherwise noted with a date.

Definition of Terms – The following scientific terms and measures found in the table may require explanation:

Maximum Contaminant Level Goal (MCLG): The level of 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 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.

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 a year because the concentrations do not frequently change. If no date appears in the column, monitoring of this contaminant was conducted during the CCR calendar year.

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

Maximum Residual Disinfectant Level Goal (MRDLG): The level of 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.

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

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

ND – “not detectable” at testing limits

n/a – “not applicable”

Units of measurement – The following units of measurement will assist in understanding the table:

ppm - parts per million, or milligrams per liter

ppb - parts per billion, or micrograms per liter

pCi/l - picocuries per liter (used to measure radioactivity)

NTU - Nephelometric Turbidity Unit (used to measure cloudiness in drinking water)

% < 0.3 NTU - percent samples less than 0.3 NTU

Water Quality Tables – Regulated and Detected Contaminants

Village of Bloomingdale (Distribution)							
Microbial Contaminants							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	MCL	Highest No. of Positive			Violation
Total Coliform Bacteria (Highest No. of positive) Naturally present in the environment	Bloomingdale	0	1 positive monthly sample	2			N
Fecal Coliform and E. Coli (Total No. of positive) Human and animal fecal waste	Bloomingdale	0	0	0			N
Disinfectant / Disinfection By-Products							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Sample	Violation
Chlorine (as Cl₂) (ppm) Water additive used to control microbes	Bloomingdale	MRDLG 4.0	MRDL 4.0	1.0	0.8 – 1.1	Monthly	N
HAA5 (Haloacetic Acids) (ppb) By-product of drinking water disinfection	Bloomingdale	n/a	60	21	12.7 – 22.2	Quarterly	N
TTHMs (Total Trihalomethanes) (ppb) By-product of drinking water disinfection	Bloomingdale	n/a	80	43	16.81 – 62.2	Quarterly	N
Lead and Copper							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	Action Level	90 th Percentile	# of sites over AL	Date of Sample	Violation
Copper (ppm) Corrosion of household plumbing systems; erosion of natural deposits	Bloomingdale	1.3	AL=1.3	0.00	0	7/17/2020 to 8/25/2020	N
Lead (ppb) Corrosion of household plumbing systems; erosion of natural deposits	Bloomingdale	0	AL=15	0.00	0	7/17/2020 to 8/25/2020	N

City of Chicago (Source)							
Turbidity Data							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Sample	Violation
*Turbidity (NTU/Lowest Monthly % ≤0.3 NTU) Soil runoff	Chicago	n/a	TT(Limit 95% ≤ 0.3 NTU)	Lowest Monthly %: 100%	100.0%-100.0%		N
*Turbidity (NTU/Highest Single Measurement) Soil runoff	Chicago	n/a	TT(Limit 1 NTU)	0.20	n/a		N
Inorganic Contaminants							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Sample	Violation
Barium (ppm) Discharge of drilling waste, metal refineries; erosion of natural deposits	Chicago	2	2	0.0203	0.0200 – 0.0203		N
Nitrate (as Nitrogen) (ppm) Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Chicago	10	10	0.28	0.28 – 0.28		N
Total Nitrate & Nitrite (as Nitrogen) (ppm) Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Chicago	10	10	0.28	0.28 – 0.28		N
Total Organic Carbon (TOC)							
TOC	Chicago	The percentage of TOC removal was measured each month and the system met all TOC removal requirements set by IEPA					
Unregulated Contaminants							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Sample	Violation
Sulfate (ppm) Erosion of naturally occurring deposits	Chicago	n/a	n/a	27.4	26.9 – 27.4		N
Sodium (ppm) Erosion from naturally occurring deposits; Used in water softener regeneration	Chicago	n/a	n/a	9.99	9.79 – 9.99		N
State Regulated Contaminants							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Sample	Violation
Fluoride (ppm) Erosion of natural deposits; Water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Chicago	4	4	0.77	0.65 – 0.77		N
Radioactive Contaminants							
Contaminant (unit of measurement) Typical source of contaminant	Sample Collected By	MCLG	MCL	Highest Level Detected	Range of Detections	Date of Sample	Violation
Combined Radium 226/228 (pCi/L) Decay of natural and manmade deposits	Chicago	0	5	0.95	0.83 – 0.95	2/04/2020	N
Gross Alpha (pCu/L) (excluding radon and uranium) Erosion of natural and manmade deposits	Chicago	0	15	3.1	2.8 – 3.1	2/04/2020	N

Water Quality Data Table Footnotes

Turbidity

Turbidity is a measure of the cloudiness of water. Turbidity is a good indicator of water quality and the effectiveness of filtration and disinfectants.

Unregulated Contaminants

A maximum contaminant level (MCL) for these contaminants has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose of monitoring these contaminants 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 water supplies to promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride level of 0.7 mg/l.

Sodium

There is no state/federal MCL for sodium. Monitoring is required to provide information to consumers and health officials 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.

2021 Violation Summary

The Village of Bloomingdale and City of Chicago had no water quality violations for calendar year 2021.

Revised Total Coliform Rule - 2021 Level 1 Assessment

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct one Level 1 Assessment. One Level 1 Assessment was completed. In addition, we were required to take two corrective actions and we completed both of these actions.

The Level 1 Assessment (in-house review of the water system, operations and procedures) was triggered due to having 2 routine distribution samples that were positive for total coliform during July 2021. Follow up samples did NOT test positive for coliform or E. Coli. During the assessment, corrective action identified included replacing older sample stations and reviewing sampling procedures following the hydrant flushing program. The Village has begun replacing sample stations and expects to have all older units replaced within five years. Sampling staff will continue to ensure that sample stations are sufficiently flushed and disinfected prior to taking samples, particularly after the flushing program.

Bloomingdale Statement on Lead in Drinking Water

The Village of Bloomingdale continues to research and compile data on water service materials found throughout the Village. To date, there have been no lead water services found to be connected to the Village's distribution system. For properties developed prior to 1992, the potential for trace amounts of lead in fittings, soldering materials, and plumbing fixtures still exists. In addition to following the recommendations found on Page 1, customers concerned about lead in drinking water should consider updating older plumbing fixtures with new lead-free fixtures.

Lead samples are required to be collected every three years at sites determined by the IEPA throughout the distribution system. The Village of Bloomingdale completed required lead sampling in 2020. Of the 30 samples collected, 28 had no detectable lead present. The 2 detectable samples were well below the Action Level.

Where to Find Additional Water Quality Information

The Village of Bloomingdale encourages customers to keep informed about drinking water quality. To learn more, contact the Public Works Department at 630-671-5800 or visit <http://villageofbloomingdale.org/161/Water-Production> Information is also available at IEPA's Drinking Water Watch by visiting <http://water.epa.state.il.us/dww/index.jsp>.

