



Annual Water Quality Report January 1, 2021 to December 31, 2021

WHAT IS THE WATER QUALITY REPORT?

The Annual Water Quality Report, also known as the Consumer Confidence Report, is an annual report required by the Safe Drinking Water Act (SDWA). This report is intended to provide citizens with important information about the Village's drinking water and the efforts made by the water system to provide safe drinking water. The report provides facts, violations (if applicable) and contaminants identified in the water drinking supply during the calendar year of January 1, 2021 through December 31, 2021.

The Village of Wheeling is committed to providing all consumers with safe and reliable drinking water. For more information regarding this report, please contact Jeff Wolfram, Utility Superintendent, at (847) 279-6928 or by email at jwolfram@wheelingil.gov.

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable con alguien que lo entienda bien.

SOURCE WATER INFORMATION

The source of drinking water used by the Village of Wheeling is Purchased Surface Water. The Village of Wheeling receives water from Lake Michigan through the Northwest Water Commission (NWWC), which in turn receives water from the City of Evanston that utilizes three water cribs, or intakes, located over a mile offshore in Lake Michigan. The City of Evanston pumps and treats the lake water at their treatment plant. The plant provides the following treatment processes: coagulation/flocculation, sedimentation, filtration, and disinfection. The water is then transported to the NWWC through a 60-inch transmission main to a 25-million-gallon reservoir at the NWWC main pumping station. From there, water is pumped into the Village of Wheeling's three receiving stations.

SOURCE OF DRINKING WATER

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 from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which can 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 result from urban storm water run-off, 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 run-off 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 run-off 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 Environmental Protection Agency (EPA) Safe Drinking Water Hotline at (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 protections 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 (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 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>.

SOURCE WATER ASSESSMENTS

The Village of Wheeling wants customers to be informed about their water quality. The public is welcome to attend Village Board meetings where decisions that affect drinking water quality are made. The Village Board meets every first and third Monday of the month at 6:30 PM at Village Hall, 2 Community Boulevard, Wheeling, IL 60090. The source water assessment for the Village's supply has been completed by the Illinois Environmental Protection Agency (IEPA). If you would like a copy of this information, please contact the Utility Superintendent at (847) 279-6928. 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, please access the IEPA 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 intakes with no protection only dilution, which is the reason for mandatory treatment for all surface water supplies in Illinois. All three of Evanston's intakes are located far enough offshore that shoreline impacts are not considered a factor on water quality. However, at certain times of the year the potential for contamination exists due to the proximity of the North Shore Channel and wet-weather flows. In addition, the proximity to a major shipping lane adds to the susceptibility of these three intakes.

DEFINITIONS & ABBREVIATIONS:

- *Action Level Goal (ALG)*: The level of a contaminant in drinking water which there is no 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.
- *Avg*: Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- *Level 1 Assessment*: 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 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 bacteria have been found in our water system on multiple occasions.
- *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.
- *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.
- *Maximum Residual Disinfectant Level (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 (MRDLG)*: The level of a drinking water 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.
- *mrem/year*: millirems per year (a measure of radiation absorbed by the body).
- *na*: Not applicable.
- *NTU*: nephelometric turbidity units.
- *pCi/L*: picocuries per liter (a measure of radioactivity)
- *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 (TT)*: A required process intended to reduce the level of a contaminant in drinking water.

2021 Evanston Water Quality Data

INORGANIC CONTAMINANTS	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	0.021	0.021-0.021	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2021	0.7	0.7 - 0.7	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (measured as Nitrogen)	2021	0.3	0.3 - 0.3	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium*	2021	8	8.1 - 8.1			ppm	N	Erosion from naturally occurring deposits; Used in water softener regeneration.

*There is no 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.

RADIOACTIVE CONTAMINANTS	Collection Date**	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2020	1.02	1.02-1.02	0	5	pCi/L	N	Erosion of natural deposits.
Gross Alpha excluding Radon and Uranium	2020	0.72	0.72-0.72	0	15	pCi/L	N	Erosion of natural deposits.

**The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though accurate, is more than one years old.

TURBIDITY***	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest Single Measurement	1 NTU	0.17 NTU	N	Soil runoff.
Lowest Monthly % Meeting Limit	0.3 NTU	100%	N	Soil runoff.

****Turbidity is a measurement of the cloudiness of the water caused by suspended particles. It is monitored because it is a good indicator of water quality and the effectiveness of the 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.

PFOS

Information Statement:

PFOS-In 2021, our PWS was samples as part of the State of Illinois PFAS Statewide Investigation. Results from this sampling indicated PFAS were detected in our drinking water. PFOA was detected above the health advisory level and PFOS was detected below the health advisory level established by the Illinois EPA. Follow up monitoring is being conducted. ppt=parts per trillion. Results can be found <https://www.cityofevanston.org/government/departments/public-works/public-outreach/historical-pfsa-results>. For more information about PFAS health advisories <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/pfas-healthadvisory.aspx>

Contaminant	Collection Date**	Highest Level Detected	Range of Levels Detected	IEPA Guidance Level	US EPA Guidance Level	Units	Violation	Likely Source of Contamination
Perfluorooctanesulfonic acid (PFOS) (ppt)	2021	2.4	2.2 - 2.4	14.0 ppt	70.0 ppt	ppt	N	Surfactant for fire-fighting foam, mist suppressant for metal-plating baths, grease and water resistance to materials such as textiles, carpets, and paper. Production ceased in 2002.
Perfluorooctanoic acid (PFOA) (ppt)	2021	2.4	2.2 - 2.4	2.0 ppt	70.0 ppt	ppt	N	Surfactant for fire-fighting foam, mist suppressant for metal-plating baths, grease and water resistance to materials such as textiles, carpets, and paper. Production ceased in 2015.

2021 Wheeling Water Quality Data

LEAD AND COPPER	Date Sampled****	MCLG	AL	90 th Percentile	No. of Sites	Units	Violation	Likely Source of Contamination
Lead	2020	0	15	3.51	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

****The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though accurate, is more than one years old.

DISINFECTANTS AND DISINFECTION BY-PRODUCTS	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2021	1.0	0.8 - 1	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2021	15	10.1-15.72	No goal for the total	60	ppb	N	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.

Total Trihalomethanes (TTHM)	2021	34	15.91 - 40.6	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
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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.

INORGANIC CONTAMINANTS	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	2021	0.035	0.035-0.035	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2021	1.02	1.02 – 1.02	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron*	2021	0.28	0.28 - 0.28		1.0	ppm	N	*This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Sodium	2021	27	27 – 27			ppm	N	Erosion from naturally occurring deposits; Used in water softener regeneration.
Manganese	2021	8.6	8.6 - 8.6	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits

There is no 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.

RADIOACTIVE CONTAMINANTS	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2019	13.03	10.36 – 13.03	0	5	pCi/L	N	Erosion of natural deposits.
Gross Alpha excluding Radon and Uranium	2019	24.8	19.9 – 24.8	0	15	pCi/L	N	Erosion of natural deposits.

WATERING RESTRICTIONS

For conservation efforts, the Village of Wheeling implements an even-odd address watering system in effect from May 15 to September 15.

- Properties with street addresses that end with an even number (0, 2, 4, 6, and 8) can only water on even-numbered calendar days.
- Properties with street addresses that end with an odd number (1, 3, 5, 7, and 9) can only water on odd-numbered calendar days.
- Watering is prohibited for all properties from 12:00 p.m. to 6:00 p.m. every day.

Please note: The watering of newly laid sod or seed is permitted at any time and on any day upon issuance of an appropriate permit and for a time not to exceed two (2) consecutive weeks.

Residents may contact the Department of Community Development with water restriction questions at 847-459-2620.

