

City of Wilmington PWS

Drinking Water Consumer Confidence Report for 2021

The City of Wilmington Water Department has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts. In 2021, we had a current, unconditioned license to operate our water system.

Source Water Information

The City of Wilmington has a surface water lime softening water plant. Caesar Creek Lake, located approximately 14 miles northwest of Wilmington, is a source of our water. Two reservoirs near Burtonville are maintained as an alternate water source. They are located 3 miles south of Wilmington and can be filled from either Cowan Creek or Caesar Creek Lake. The reservoirs are often used when the water from Caesar Creek Lake is of poor quality.

The City of Wilmington has an auxiliary connection with the Western Water Company which is used, when needed, to supply our outlying customers during main break repairs. No water was purchased from Western Water Company during 2021.

The City of Wilmington public water system's primary sources of water are Caesar Creek Lake and Cowan Creek. Surface waters are by their nature susceptible to contamination, and numerous potential contaminant sources along their banks make them more so. The protection area around Caesar Creek Lake and Cowan Creek consists of a large number of potential contaminant sources, including leaking underground storage tanks, airports, cemeteries, various commercial, industrial and manufacturing operations, and road crossings. As a result, the surface water supplied to the City of Wilmington is considered to have a high susceptibility to contamination. More detailed information is provided in the Wilmington's Drinking Water Source Assessment report, which can be obtained by calling Travis Luncan at (937) 382-5711.

What are sources of contamination to 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: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) 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; (E) radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit concentrations 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. 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's Safe Drinking Water Hotline (1-800-426-4791).

Who needs to take special precautions?

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 infection. 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).

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The City of Wilmington PWS conducted sampling for bacteria; inorganic; synthetic organic and volatile organic chemicals during 2021. Samples were collected to test for a total of 53 different contaminants, most of which were not detected in the City of Wilmington PWS. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, may be more than one year old. To obtain more information, please contact Rick Schaffer at 937-382-6509 or at Wilmington Water Plant, 1142 Prairie Ave. Wilmington OH 45177.

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. The City of Wilmington PWS 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 Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Public Participation Information

How do I participate in decisions concerning my drinking water? Public participation and comment are encouraged at regular council meetings. They are held on the first and third Thursday of each month, 7:30 PM at City Hall, 69 North South Street. If you have any questions about this report or concerning your water utility please contact Rick Schaffer at (937) 382-6509.

Terms used in the Table of Detected Contaminants and in other parts of this report are defined here.

Non-Detections (ND) - laboratory analysis indicates that the constituent is not detectable at the testing limits.

Parts per million (ppm) or Milligrams per liter (mg/l) – are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per billion (ppb) or Micrograms per liter - are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Parts per trillion (ppt) or Nanograms per liter - are units of measure for concentration of a contaminant. A part per trillion corresponds to one second in 31,700 years.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Not Applicable (N/A)- does not apply.

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

Maximum Contaminant Level - The “Maximum Allowed” (MCL) is 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 - The “Goal” (MCLG) is 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 residual disinfectant level allowed.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of residual disinfectant below which there is no known or expected risk to health.

PFAS - Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them waterproof, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF) which are used mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.

Table of Detected Contaminants

Listed below is information on those contaminants that were found in the City of Wilmington PWS drinking water.

Regulated Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Turbidity ¹ (NTU)	N/A	TT	0.16	0.03 - 0.16	No	2021	Soil Runoff
Turbidity ¹ (% meeting standard)	N/A	TT	100%	100%-100%	No	2021	Soil Runoff
Nitrate (ppm)	10	10	2.39	0.31 - 2.39	No	2021	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ppm)	4	4	0.95	0.47 – 1.07	No	2021	Erosion of natural deposits; additive to promote strong teeth
Total Organic Carbon	N/A	TT ²	3.56	3.22 – 4.14	No	2021	Organic Matter
TTHMs (ppb) [Trihalomethanes]	N/A	80 ³	65.8	32.2 – 78.1	No	2021	By-product of drinking water chlorination
HAA5 (ppb) [Haloacetic Acids]	N/A	60 ³	23.4	12.8 – 24.3	No	2021	
Lead (ppb)	AL = 15 90th percentile must be less than 15 ppb	0	90th percentile ND ND	ND – 13.6	No	2019	May come from erosion of natural deposits. Corrosion of household plumbing is a source of lead and copper contamination.
Copper (ppm)	AL = 1.3 90th percentile must be less than 1.3 ppm	1.3	90th percentile ND ND	ND - 0.87	No	2019	
Total Chlorine (ppm)	MRDLG 4	MRDL 4	2.31	1.93 - 2.45	No	2021	Element used for disinfection

¹Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the Wilmington Water System’s highest recorded result for 2021 was 0.16 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

²The value reported under “Level Found” for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

³Maximum Contaminant Level for TTHMs and HAA5s is based on Locational Running Annual Average.

In 2021, our PWS was sampled as part of the State of Ohio’s Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Results from this sampling indicated PFAS were detected in our drinking water below the action level established by Ohio EPA. Follow up monitoring was conducted in 2021 and the samples indicated the results shown in the following table. For more information about PFAS, and to view our latest results, please visit [pfas.ohio.gov](https://www.pfas.ohio.gov).

Unregulated Contaminants (Units)	MCLG	MCL	Average Level Detected	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Perfluorooctanesulfonic acid (ppt)	N/A	N/A	7.4	ND – 14.4	N/A	2021	Man-made chemicals applied to products to make them waterproof, stain resistant, or nonstick as well as firefighting foam
Perfluorohexanesulfonic acid (ppt)	N/A	N/A	4.8	ND – 9.7	N/A	2021	
Perfluorooctanoic acid (ppt)	N/A	N/A	1.6	ND – 6.2	N/A	2021	