

# Health conditions may require 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).

# What you should know about lead in 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 service lines and home plumbing. The City of Fairfield 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 at 1-800-426-4791 or at [epa.gov/safewater/lead](https://epa.gov/safewater/lead).

## For more information...

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For additional copies of this Consumer Confidence Report and more information call (513) 858-7775, or visit our website at [fairfieldoh.gov/2022waterqualityreport](https://fairfieldoh.gov/2022waterqualityreport).

Please share this report with renters or others who do not receive water bills.

The public is invited to express its views or questions concerning this report. Regular meetings of Fairfield City Council are held on the second and fourth Monday of each month at 7:00 p.m. in Council Chambers. *(No 4th Monday meetings in June, July or August.)*

## The annual report on the quality of your drinking water

Each year, the United States Environmental Protection Agency, (USEPA) requires all entities producing drinking water to issue a report to each of its customers regarding the quality of the water produced during the previous year. The City of Fairfield practices a more rigorous testing program than required by the EPA in an effort to ensure the highest possible quality of drinking water. The City of Fairfield analyzes the final drinking water for all parameters outlined in the National Primary Drinking Water Regulation: Consumer Confidence Report 40 CFR Parts 141 and 142. In addition, the City analyzes the water for many unregulated chemical compounds. Fairfield's Water Treatment Plant is designed to pump raw water from underground wells and produce a consistently high quality finished water. The process softens water by calcium precipitation. The City then filters the water, adds fluoride to promote strong teeth, and adds chlorine as a disinfectant to control microbial contaminants.

## The City of Fairfield met or exceeded all national standards required in the production of drinking water at the Fairfield Water Treatment Plant during 2022.



5350 Pleasant Avenue  
Fairfield, OH 45014



# 2022 *Drinking Water* Consumer Confidence Report

A comprehensive review of scientific testing during operational year 2022.





# What is the source of your drinking water?

The City of Fairfield gets its water from the Great Miami Buried Valley Aquifer, a sand and gravel aquifer formed by glaciers more than 10,000 years ago. Utilizing six deep wells, 2.0 billion gallons of water were pumped during 2022 to the City’s Water Treatment Plant for treatment. To ensure water quality and source water protection, the aquifer is monitored by the Hamilton to New Baltimore Groundwater Consortium, a group comprised of the City of Fairfield, City of Hamilton, City of Cincinnati, Southwest Regional Water District, Southwestern Ohio Water Company, MillerCoors, and The Butler County Water & Sewer Department.

The Great Miami Buried Valley Aquifer is the source of Fairfield’s drinking water and while it supplies high-quality water, it is highly susceptible to contamination. The Ohio Environmental Protection Agency (OEPA) has determined that it is vulnerable because the aquifer does not have a protective layer of clay above it, the water is shallow, there are potential contamination sources nearby and there are low levels of nitrate in the aquifer. This does not mean the aquifer is contaminated, only that it is vulnerable to contamination.

## Source water protection

The City of Fairfield and the Consortium have dedicated efforts to develop and implement a comprehensive Source Water Protection Plan (SWPP) to prevent contamination from impacting the source of Fairfield’s drinking water. The protection plan contains an educational component, source control strategies, a contingency and emergency response plan, and groundwater monitoring strategies. More information about the source water assessment and what consumers can do to help protect the aquifer is available by calling Tim McLelland, Groundwater Consortium Manager, at (513) 785-2464 or visiting the Consortium website at [gwconsortium.org](http://gwconsortium.org).

## YOU can help safeguard drinking water

Every effort helps safeguard the underground water supply on which Fairfield relies for its drinking water. The safe disposal of household items such as cleaning products, old pool chemicals, motor oils, pharmaceuticals and paints/solvents is an important step in safeguarding our environment. When applying lawn care products, carefully follow mixing instructions, then apply as directed. For more information on how to dispose of household hazardous wastes, contact The Butler County Solid Waste District at 513-887-3653.

Protection of our water resources is only the beginning of each household’s efforts to safeguard our environment. Recycling practices and energy conservation are encouraged in every Fairfield home and business.

# Sources of drinking water contamination

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, United States Environmental Protection Agency (USEPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (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 Federal Environmental Protection Agency’s Safe Drinking Water Hotline (1-800-426-4791).

## About Fairfield’s drinking water...

Fairfield currently has an unconditional license to operate its water system. During operational year 2022, Fairfield’s drinking water met all federal and state standards as established by the USEPA and Ohio Environmental Protection Agency (OEPA).

The OEPA requires regular sampling to ensure the safety of drinking water. At no time did testing find contaminants exceeding acceptable ranges. The chart to the right contains information about items defined by the OEPA as contaminants detected in the City of Fairfield’s drinking water during 2022. Samples were collected at the plant tap and in the distribution system as required by the OEPA. Data is the result of monitoring required by the OEPA, some of which is not required to be monitored every year.

Note that in 2022 the City sampled water from 30 homes for lead. All levels were well below federal limits. Lead is generally not an issue in Fairfield as there are no known lead water service lines or mains in the City. Additionally, in 2020 Fairfield’s system was sampled as part of the State of Ohio’s Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and none were detected in the City’s finished drinking water. For more information about PFAS, please visit [pfas.ohio.gov](http://pfas.ohio.gov).

Contaminant (Units)							
Inorganic Contaminants	MCLG	MCL	Level Found	Range of Detection	Violation?	Sample Year	Typical Source of Contaminant
Barium (ppm)	2	2	0.0138	NA	No	2022	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	0.92	NA	No	2022	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	1.07	0.88-1.15	No	2022	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Copper	MCLG	MCL	90% of Test Levels Were Less Than	Individual Results Over the AL	Violation?	Sample Year	Typical Source of Contaminant
Copper (ppm)	1.3	AL=1.3	0.02	0 out of 30 samples	No	2022	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppm)	0	AL=15	1.2	1 of 30 samples	No	2022	Corrosion of household plumbing systems; Erosion of natural deposits.
Residual Disinfectants	MRDLG	MRDL	Level Found	Range of Detection	Violation?	Sample Year	Typical Source of Contaminant
Total Chlorine (ppm)	4	4	1.09	1.03-1.09	No	2022	Water additive used to control microbes
Disinfection Byproducts	MCLG	MCL	Level Found	Range of Detection	Violation?	Sample Year	Typical Source of Contaminant
Total Trihalomethanes [TTHMs] (ppb)	NA	80	31.7	30.2-31.7	No	2022	By-product of drinking water chlorination
Haloacetic Acids [HAA5] (ppb)	NA	60	5.7	5.5-5.7	No	2022	By-product of drinking water chlorination
MCLG - Maximum Contaminant Level Goal: 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.					MRDLG - Maximum Residual Disinfectant Level Goal: The level of drinking water disinfectant below 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.		
MCL - Maximum Contaminant Level: The highest level of 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.							
ppm - Parts per Million or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A ppm corresponds to 1 second in a little over 11.5 days.					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		
ppb - Parts per Billion or Micrograms per Liter (ug/L) are units of measure for concentration of a contaminant. A ppb corresponds to 1 second in 31.7 years.							
NA - Not Applicable					AL - Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.		
ND - Not Detected							
Because accurate test methods for detecting <i>Cryptosporidium</i> at very low levels are not available, the EPA does not require testing of treated drinking water unless the concentration in the raw water exceeds 10 per liter. The City was not required to monitor for <i>Cryptosporidium</i> .							

Unregulated Contaminants	MCLG	MCL	Level Found	Range of Detection	Violation?	Sample Year	Typical Source of Contaminant
Bromodichloromethane (ppb)	NA	NA	9.6	9.2-9.6	No	2022	By-product of drinking water chlorination
Bromoform (ppb)	NA	NA	4.8	4.5-4.8	No	2022	By-product of drinking water chlorination
Chloroform (ppb)	NA	NA	6.6	6.6-6.6	No	2022	By-product of drinking water chlorination
Dibromochloromethane (ppb)	NA	NA	10.7	9.9-10.7	No	2022	By-product of drinking water chlorination
Nickel (ppm)	NA*	NA	0.024	NA	No	2022	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
* The health advisory level for nickel is 0.1 ppm. The lifetime health advisory level is the concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for a lifetime of exposure.							

