

## 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, the elderly, infants and expectant mothers 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* (a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms) and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791 (tollfree).

## 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 online at <http://www.epa.gov/safewater/lead> or from the Safe Drinking Water Hotline at 1-800-426-4791 (tollfree).

### For more information...

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Fairfield is a charter member of the Hamilton to New Baltimore Groundwater Consortium, comprised of Fairfield, Hamilton, Cincinnati, Southwest Regional Water District, the Southwestern Ohio Water Company, Miller Brewing Company and the Butler County Department of Environmental Services. The organization maintains an informative website at [www.gwconsortium.org](http://www.gwconsortium.org).

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.)

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

Each year, the Federal Environmental Protection Agency 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 adds fluoride and chlorine to the water.

The City of Fairfield has met or exceeded all national standards required in the production of drinking water at the Fairfield Water Treatment Plant during 2009.



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# Drinking Water Consumer Confidence Report



**City of Fairfield**

**A comprehensive review of scientific  
testing during operational year 2009**

## 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, 1.9 billion gallons of water were pumped during 2009 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, Miller Brewing Company, and Butler County Department of Environmental Services.



Drinking water, including bottled water, may 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 may be obtained by calling the United States Environmental Protection Agency's (USEPA) Safe Drinking Water Hotline at (800) 426-4791. The USEPA Drinking Water Web Site is [www.epa.gov/safewater](http://www.epa.gov/safewater).

## Source water protection

The City of Fairfield and the Consortium have dedicated efforts to develop and implement a comprehensive wellhead protection plan 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 or 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 [www.gwconsortium.org](http://www.gwconsortium.org).

## Sources of drinking water contamination

The sources of drinking water (*both tap 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 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 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*

**Turbidity:** *from soil runoff*

**Trihalomethanes:** *a by-product of drinking water chlorination*

**Nitrates:** *resulting from runoff of fertilizer and leaching from septic tanks*

## YOU can help safeguard drinking supplies

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 and paints/solvents is an important step in safeguarding our environment. When applying lawn care products, carefully follow mixing instructions, then apply as directed. The proper disposal of used motor oils can also help protect water resources.

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.

## About Fairfield's drinking water...

Fairfield currently has an unconditional license to operate its water system. During operational year 2009, Fairfield's drinking water met all standards established by the 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. Below is a listing of information about items defined by the OEPA as contaminants detected in the City of Fairfield's drinking water during 2009. 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.

Contaminant (Units)	MCLG	MCL	Level Found	Range of Detection	Violation?	Year Sampled	Typical Source of Contaminant
<b>Inorganic Contaminants</b>							
Lead (ppb)	0	AL=15	<5.0	NA	No	2009	Corrosion of household plumbing systems
<i>Zero out of 30 samples was found to have lead levels in excess of the Action Level of 15 ppb</i>							
Copper (mg/l)	1.3	AL=1.3	0.098	NA	No	2009	Corrosion of household plumbing systems
<i>Zero out of 30 samples was found to have copper levels in excess of the Action Level of 1.3 mg/l</i>							
Nitrate (mg/l)	10	10	1.27	NA	No	2009	Fertilizer run-off; erosion of natural deposits
Fluoride (mg/l)	4	4	1.2	0.90-1.2	No	2009	Water additive which promotes strong teeth; erosion of natural deposits
<b>Residual Disinfectants</b>							
Total Chlorine (ppm)	MRDL=4	MRDLG=4	0.98	0.89-0.98	No	2009	Water additive used to control microbes
<b>Volatile Organic Contaminants</b>							
Total Trihalomethanes (TTHMs) - (ppb)	0	80	42.2	NA	No	2009	By-product of drinking water chlorination
Haloacetic Acids HAA5 (ppb)	0	60	9.37	NA	No	2009	By-product of drinking water chlorination
IDSE TTHM*	NA	NA	NA	6.49-29.6	NA	2009	By-product of drinking water chlorination
IDSE HAA5*	NA	NA	NA	<6.00-8.22	NA	2009	By-product of drinking water chlorination

\* Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), Fairfield's public water system was required by United States Environmental Protection Agency (USEPA) to conduct an evaluation of the City's distribution system. Known as an Initial Distribution System Evaluation (IDSE), this process is intended to identify locations in the system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR beginning in 2012. Disinfection byproducts are the result of providing continuous disinfection of the City's drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories: Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both TTHMs and HAA5s.

<b>AL</b>	Action Level—Concentration of a contaminant which triggers treatment or other requirements which a water system must follow. For lead and copper, the action level (AL) is defined as the 90th percentile sample	<b>MRDL</b>	Maximum Residual Disinfectant Level—the highest residual disinfectant allowed
<b>IDSE</b>	Initial Distribution System Evaluation	<b>NA</b>	Not Applicable
<b>MCL</b>	Maximum Contaminant Level—the highest level allowed in drinking water	<b>ND</b>	Below Analytic Method Detection Level
<b>MCLG</b>	Maximum Contaminant Level Goal—the level below which there is no known or expected risk to health	<b>ppb</b>	Parts per billion or micrograms/liter
<b>mg/l</b>	Parts per million (ppm) or milligrams/liter	<b>ug/l</b>	Micrograms per liter
		<b>&lt;</b>	Less than

Because accurate test methods for detecting Cryptosporidium at very low levels are not available, the EPA does not require testing of treated drinking water unless their concentration in the raw water exceeds 10 per liter. The City was not required to monitor for Cryptosporidium.

This report was prepared in accordance with the U.S. EPA's National Primary Drinking Water Regulation for Consumer Confidence Reports. Additional Reports are available upon request. Visit the City of Fairfield on the Web at [www.fairfield-city.org](http://www.fairfield-city.org).