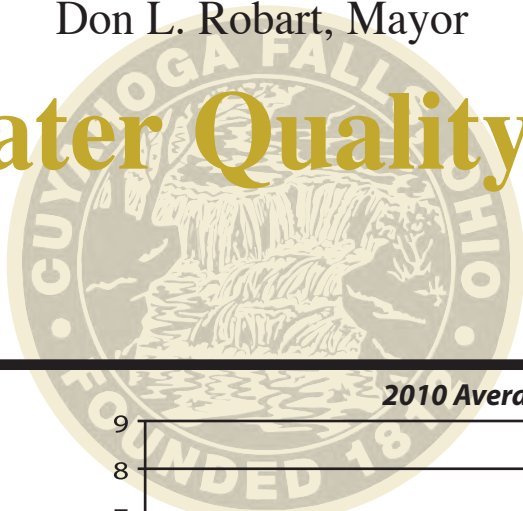


# 2010 Water Quality Report



The City of Cuyahoga Falls Water Treatment Plant, which is located at 2028 Munroe Falls Avenue in Cuyahoga Falls, uses well water as a source. The well field consists of eighteen (18) wells located in Water Works Park on the south bank of the Cuyahoga River. This area is part of a buried valley where permeable outwash gravels are crossed by major streams. The Cuyahoga River contributes flow to the aquifer and the well field is recharged by a series of man-made channels and lagoons. Water samples are taken annually and tested for volatile organic compounds, trihalomethanes, and naturally occurring radioactive elements.

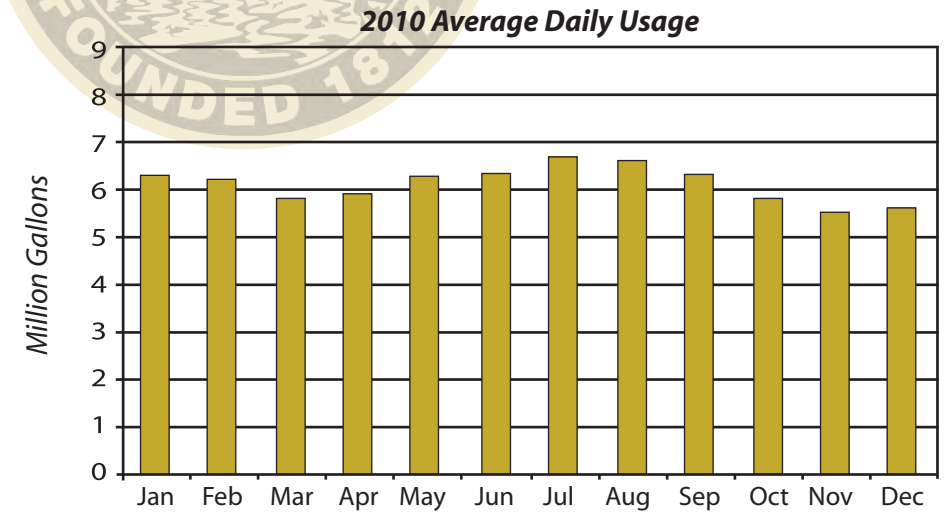
The well field, which is the source for raw water to the water treatment plant, is surrounded by two theoretical protection zones. The "inner protection zone" is the area that provides ground water to the City of Cuyahoga Falls' wells within one year of pumping. A chemical spill in this zone poses a greater threat to the drinking water, so this area warrants more stringent protection. The "outer protection zone" is the additional area that contributes water when the well is pumped for five years.

An inventory of potential contaminant sources located within the drinking water source was conducted by the Ohio EPA. Nineteen potential sources of contamination were identified within the protection areas. A list of these potential contaminants is available in the source water assessment report, again available in the water office.

The protection of our drinking water source is the responsibility of all area residents. Please dispose of chemicals, household cleaners and pesticides in the proper manner. For more information, please call the Water Utilities Department office at 330-971-8130, Monday through Friday, 8am to 5pm.

### Lead-Copper Content in Drinking Water

The Cuyahoga Falls Water Department is committed to providing our customers with safe drinking water. We have a current, unconditioned license to operate our water system. 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 Cuyahoga Falls 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



On average, the Cuyahoga Falls Water Treatment plant processed and pumped 6,469,000 gallons of water per day to area residents. Residents can attend the bi-weekly City Council meetings at the Natatorium on the second and fourth Mondays each month at 6:30 pm.

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>. No water samples taken in 2010 exceeded the action level for lead content but the Cuyahoga Falls water plant had an action level violation for copper during the months of August and September 2010. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal physician. The pH of our finished water has been increased to help reduce the copper levels and additional copper testing will be done in 2011. Our goal is not just to meet the strict requirements of the USEPA, but to provide treatment that surpasses these requirements in every category. To ensure that we reach this goal, Cuyahoga Falls tests the finished water frequently to assure that all standards are met. ▲

### How is Your Drinking Water Treated at the Plant?

The water is pumped from the well field to the City of Cuyahoga Falls Water Plant that uses a series of processes to reduce naturally occurring constituents found in the groundwater source. All of the water is discharged into iron removal filters, where chlorine is added to remove iron and manganese that cause staining of clothing and plumbing fixtures.

Depending on raw water hardness,

approximately two-thirds of the iron filter effluent is softened using ion exchange softeners. This softened water effluent and the iron filter effluent that bypass the softening units are blended in the mixing tank to produce a finished hardness of 150 to 170 ppm, as CaCO<sub>3</sub>.

In the mixing chamber, chlorine, fluoride, caustic soda and polyphosphate are added. Chlorine is added to disinfect the water. Chlorine protects the community by destroying or inactivating bacteria that may be introduced into the distribution system. Coliform bacteria are generally thought of as indicator bacteria. Its presence indicates that other potentially harmful bacteria may be present. Of the 741 samples analyzed in 2010, all showed 0% presence of coliform bacteria. The use of chlorine produces disinfection by-products called trihalomethanes, or TTHMs and haloacetic acids, HAA5s. The level of TTHMs and HAA5s produced in the Cuyahoga Falls water supply can be found on the next page.

Fluoride is added for protection from tooth decay. Caustic soda and polyphosphate are added for corrosion control and pH adjustment. ▲

The City of Cuyahoga Falls is constantly working to improve our treatment facilities and the drinking water. We hope you agree that our safe and plentiful water supply is one of the many good qualities about living in Cuyahoga Falls. We are committed to providing you with information about your water supply because customers who are well informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

Please feel free to call us if you have any questions about this report or our operations. ▲

## Monitoring Results for 2010

Contaminant (Units)	MCL	MCLG	Level Found	Range of Detections	Violation	Sample Date	Typical Source of Contaminants
Lead (ppb)	AL=15	0	ND	NA	NO	2010	Corrosion of Household Plumbing
0 out of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.							
Copper (ppm)	AL=1.3	1.3	1.7	NA	YES	2010	Corrosion of Household Plumbing
9 out of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.							
Barium (ppm)	2	NA	0.05	no range	NO	2010	Erosion of natural deposits
Fluoride (ppm)	4.0	4.0	1.0	0.8 to 1.1	NO	Daily	Water additive that promotes strong teeth
<b>Disinfection By Products</b>							
TTHM (ppb) [Total Trihalomethane]	80	0	49	33 to 55	NO	2010	By-product of drinking water chlorination
HAA5 (ppb) [Haloacetic Acids]	60	0	28	15 to 29	NO	2010	By-product of drinking water chlorination
IDSE TTHM (ppb)*	NA	NA	NA	22 to 44	NA	2009	By-product of drinking water chlorination
IDSE HAA5 (ppb)*	NA	NA	NA	13 to 29	NA	2009	By-product of drinking water chlorination
<b>Residual Disinfectants</b>							
Chlorine (ppm)	MRDL=4	MRDLG=4	1.2	0.9 to 1.3	NO	Daily	Water additive to control microbes

### KEY TO TABLE

- ppm is parts per million, or 1 part in a million parts.
- ppb is parts per billion, or 1 part in a billion parts.
- AL is action level.
- pCi/L is picocuries per liter, a measure of radioactivity.
- ND is non detected.
- TTHMs are Trihalomethanes which are created by the disinfection process.
- 1 ppm is equivalent to 1 inch in 15.78 miles.
- 1 ppb is equivalent to 1 inch in 15,782 miles.
- HAA5s are Haloacetic Acids which are created by the disinfection process.

*To view the water quality reports of other communities, visit [www.awwa.org](http://www.awwa.org)*

## Regulatory Corner

\*Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and is intended to identify locations in the distribution system with elevated disinfection byproduct concentrations. Disinfection byproducts are the result of providing continuous disinfection of your 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)

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-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).

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* (800-426-4791). ▲

### Contaminants

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 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 water runoff, and septic systems.
- 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, EPA 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. ▲

### EPA Definitions

#### 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 high 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.”

#### Treatment Technique (TT)

“A required process intended to reduce the level of a contaminant in drinking water.”

#### Action Level (AL)

“The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.”

#### Variance and Exemption

“State or EPA permission not to meet an MCL or a treatment technique under certain conditions.”

#### Maximum Residual Disinfectant Level (MRDL)

“The highest level of a disinfectant allowed in drinking water.”

#### Maximum Residual Disinfectant Level Goal (MRDLG)

“The level of drinking water disinfectant below which there is no known or expected risk to health.” ▲