

## Fleming County Water Association 2018 Water Quality Report

Water System ID: KY0350133 Manager: Kevin Cornette 606-845-3981	CCR Contact: Kevin Cornette 606-845-3981	Mailing Address: 2772 Morehead Road Flemingsburg, KY 41041	Meeting Location and Time: 2772 Morehead Road Flemingsburg, KY 41041 3rd Monday monthly at 9:00 am
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Fleming County Water Association purchases water from 2 wholesale water companies. The first source is Rowan Water, Inc. whose source is the Morehead Utility Plant Board. The Morehead Utility Plant Board's surface source is the Licking River. Our second source is the Greater Fleming County Regional Water Commission which uses ground water supplied by three wells in northwestern Lewis County. Water from both of these sources has the potential to mix throughout our distribution system. Therefore, the table contained within this report indicates the highest analysis results from both of our water sources. An analysis of the susceptibility of the raw water supplies to contamination indicates that the potential is generally moderate. The complete Source Water Assessments may be reviewed at the respective offices of the Morehead Utility Plant Board and the Greater Fleming County Regional Water Commission.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 may 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, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection 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. Your local public water system 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 or at <http://www.epa.gov/safewater/lead>.

**Some or all of these definitions may be found in this report:**

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 disinfectant 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.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

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

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, (µg/L). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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

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

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old.

To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**A=Rowan Water, Inc. B= Greater Fleming Regional Water Commission**

	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU Less than 0.3 NTU in 95% monthly samples	A=	0.293	100	No	Soil runoff

**Regulated Contaminant Test Results**

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
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**Inorganic Contaminants**

Barium [1010] (ppm)	2	2	A= B=	0.02 0.037	0.02 to 0.037 0.037 to 0.037	18-Mar 17-Apr	No No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	A= B=	0.7 0.63	0.7 to 0.63 0.63 to 0.63	18-Mar 17-Mar	No No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	A= B=	0.21 2.12	0.182 to 2.01 2.01 to 2.12	18-Feb 18-Oct	No No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits

**Disinfectants/Disinfection Byproducts and Precursors**

Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	A=	1.11	1 to 1.32 to to	2018	No	Naturally present in environment.
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\*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

Unregulated Contaminants (UCMR 4)	Source	average	range (ppb)	date
Manganese	A	1.596	0.652 to 2.54	Sep-18
alpha-hexachlorocyclohexane	A	0.009	0 to 0.0178	Nov-18
HAA5	A	57.458	27.8 to 97.2	Dec-18
HAA6Br	A	6.633	4.36 to 10.5	Dec-18
HAA9	A	64.118	32.3 to 104	Dec-18

Unregulated Contaminant Monitoring Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those for which EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. None of the contaminants we tested for as part of the Unregulated Contaminant Monitoring Rule were found at detectable levels in our water. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

**Fleming County Water Association**

**Regulated Contaminant Test Results**

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
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**Inorganic Contaminants**

Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.350 (90 <sup>th</sup> percentile)	0.01 to 1.8	Jul-17	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	4.9 (90 <sup>th</sup> percentile)	0 to 12	Jul-17	No	Corrosion of household plumbing systems

**Disinfectants/Disinfection Byproducts and Precursors**

Chlorine (ppm)	MRDL = 4	MRDLG = 4	0.83 (highest average)	0.53 to 1.09	2018	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	4 (high site average)	2 to 6.4 (range of individual sites)	2018	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	24 (high site average)	10.6 to 33.8 (range of individual sites)	2018	No	Byproduct of drinking water disinfection.