

Manager: P. Scott Upchurch

Contact: Jason Necessary

Phone: (606) 348-8747

Address: P O Box 549

Monticello Utility Commission

Meetings: 1040 North Main Street, Monticello Ky 42633

1st Friday after 1st Monday of each Month @ 4:00 pm

Our water source is Lake Cumberland. It is a surface water source. An analysis of susceptibility to contamination of the Monticello Water/Sewer Commission's water supply from the Lake Cumberland Reservoir indicates that this susceptibility is low. Within the critical protection area, there are five potential sources of contamination that are ranked high, three ranked medium and none ranked as low level. Non-point source contamination from land cover, bridges, and roadways are the main sources of potential contamination for this water system. Other areas of concern include underground storage tanks and KPDES permitted discharges. The location of the Lake Cumberland water intakes and remote are of the watershed make the routine non-point contaminate sources of low concern. The final source water assessment is available for review at the water office during normal business hours.

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, ($\mu\text{g/L}$). 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.

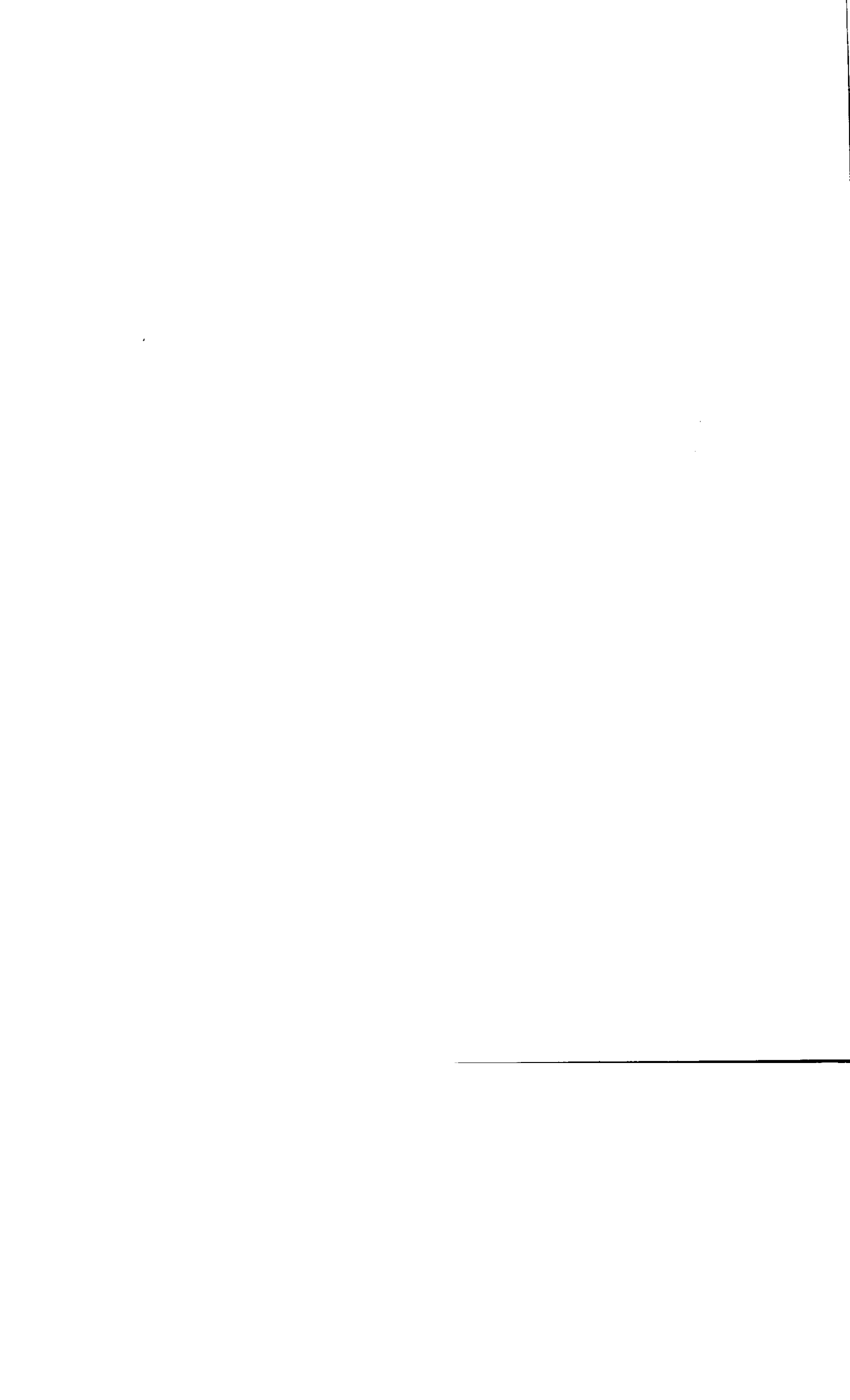
Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

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.

	Allowable Levels	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% of monthly samples	0.17	100	No	Soil runoff

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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Microbiological Contaminants

Total Coliform Bacteria # or % positive samples	TT	N/A	2	N/A	2017	No	Naturally present in the environment
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Inorganic Contaminants

Antimony [1074] (ppb)	6	6	4	4 to 4	Aug-17	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic [1005] (ppb)	10	N/A	1	1 to 1	Aug-17	No	Natural erosion; runoff from orchards or glass and electronics production wastes
Barium [1010] (ppm)	2	2	0.021	0.021 to 0.021	Aug-17	No	Drilling wastes; metal refineries; erosion of natural deposits
Beryllium [1075] (ppb)	4	4	2	2 to 2	Aug-17	No	Coal-burning factories; metal refineries; electrical, defense, and aerospace industries
Cadmium [1015] (ppb)	5	5	0.5	0.5 to 0.5	Aug-17	No	Natural deposits; corrosion of galvanized pipes; metal refineries; batteries and paints
Chromium [1020] (ppb)	100	100	2	2 to 2	Aug-17	No	Discharge from steel and pulp mills; erosion of natural deposits
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.0076 (90 th percentile)	0 to 0.0528	Jul-15	No	Corrosion of household plumbing systems
Cyanide [1024] (ppb)	200	200	10	10 to 10	Aug-17	No	Discharge from steel/metal factories; plastic and fertilizer factories
Fluoride [1025] (ppm)	4	4	0.60	0.6 to 0.6	Aug-17	No	Water additive which promotes strong teeth
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	2 (90 th percentile)	0 to 6	Jul-15	No	Corrosion of household plumbing systems
Mercury [1035] (ppb)	2	2	0.2	0.2 to 0.2	Aug-17	No	Erosion of natural deposits; refineries and factories; landfills; runoff from cropland
Nickel (ppb) (US EPA remanded MCL in February 1995)	N/A	N/A	2	2 to 2	Aug-17	No	N/A
Selenium [1045] (ppb)	50	50	1	1 to 1	Aug-17	No	Discharge from petroleum and metal refineries or mines; erosion of natural deposits
Thallium [1085] (ppb)	2	0.5	0.5	0.5 to 0.5	Aug-17	No	Leaching from ore-processing sites; discharge from glass, electronics, and drug factories

Disinfectants/Disinfection Byproducts and Precursors

Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.03 (lowest average)	1.00 to 1.33 (monthly ratios)	2017	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.

Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.30 (highest average)	0.47 to 2.36	2017	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	38 (high site average)	18 to 48 (range of individual sites)	2017	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	62 (high site average)	21 to 83 (range of individual sites)	2017	No	Byproduct of drinking water disinfection.

Fluoride (added for dental health)	Average	Range of Detection	
	0.7	0.58	to 0.83

Secondary contaminants do not have a direct impact on the health of consumers. They are being included to provide additional information about the quality of the water.

Secondary Contaminant	Maximum Allowable Level	Report Level	Range of Detection	Date of Sample
Aluminum	0.05 to 0.2 mg/l	0.42	0.42 to 0.42	Aug-17
Chloride	250 mg/l	9.3	9.3 to 9.3	Aug-17
Color	15 color units	13	13 to 13	Aug-17
Copper	1.0 mg/l	0.001	0.001 to 0.001	Aug-17
Corrosivity	Noncorrosive	-0.445	-0.445 to -0.445	Aug-17
Fluoride	2.0 mg/l	0.7	0.7 to 0.7	Aug-17
Foaming Agents	0.5 mg/l	0.1	0.1 to 0.1	Aug-17
Iron	0.3 mg/l	0.044	0.044 to 0.044	Aug-17
Manganese	0.05 mg/l	0.024	0.024 to 0.024	Aug-17
Odor	3 threshold odor number	1	1 to 1	Aug-17
pH	6.5 to 8.5	7.78	7.78 to 7.78	Aug-17
Silver	0.1 mg/l	0.002	0.002 to 0.002	Aug-17
Sulfate	250 mg/l	34.5	34.5 to 34.5	Aug-17
Total Dissolved Solids	500 mg/l	131	131 to 131	Aug-17
Zinc	5 mg/l	0.01	0.01 to 0.01	Aug-17

Level 1 Assessment: A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

During the past year we were required to conduct One Level 1 assessment(s). One Level 1 assessment(s) were completed. In addition, we were required to take one corrective action and we completed one of these actions.

We were recently made aware of a few mistakes in the 2016 CCR. In an effort to correct these mistakes, we would like to include the correct data below:

The results for TTHM and HHA were missing in the 2016 CCR. Results were as follows: **TTHM**: "High Site Average" = 62, "Range"= 15 to 87. **HAA**: "High Site Average"= 38, "Range"= 11 to 40. (Sample results in ppb)

The results for Lead and Copper were missing in the 2016 CCR. Results were as follows: **Lead**: "90th Percentile"= 2, "Range"= 0 to 6. (Lead sample results in ppb) **Copper**: "90th Percentile"= .0076, "Range"= 0 to .0528. (Copper sample results in ppm)

The data presented for Fluoride in the 2016 CCR were for the Dental Health data, which are taken 2x per month. Data that should have been included should have been from Inorganic Sampling Results which are taken annually. Results should have been as follows: **Fluoride**: "Report Level"= .5, "Range"= .5 to .5. (Results in ppm)