

**Perry County Water and Sewer  
2018 Water Quality Report**

Manager: Vernon Anderton

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Meetings: Perry County Fiscal Court 461 Main St Hazard, KY / 3rd Tuesday of Month 10:00 AM

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We purchase surface water treated by Knott County Water and Sewer District. The raw water source for the District is Carr Fork Lake. A source water assessment of the lake and watershed has been performed which includes a susceptibility analysis. Carr Fork's susceptibility to contamination is rated as moderate. However, there are a few areas of concern such as roads & bridges, logging and underground storage tanks and other activities that have the potential for the release of hazardous chemicals. Although mining is limited near the intake there are a substantial number of oil and gas wells in the protection area. Under certain circumstances contaminants could be released that would pose challenges to water treatment, or even get into your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. The complete source water assessment is available for review at the Kentucky River Area Development District office. 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. Copies of this report are available upon request by contacting our office during business hours.

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.

**K= Knott County Water and Sewer District**

	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	K=	0.09	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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**Radioactive Contaminants**

Alpha emitters [4000] (pCi/L)	15	0	K=	6.3	6.3 to 6.3	May-16	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	K=	0.729	0.729 to 0.729	Dec-16	No	Erosion of natural deposits

**Inorganic Contaminants**

Barium [1010] (ppm)	2	2	K=	0.024	0.024 to 0.024	Apr-18	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	K=	0.83	0.83 to 0.83	Apr-18	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	K=	0.26	0.26 to 0.26	Apr-18	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite [1041] (ppm)	1	1	K=	0.01	0.01 to 0.01	Apr-14	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits

**Disinfection Byproducts Precursor**

Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	K=	1.67	1 to 3.35	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.

**P= Perry County Water and Sewer District**

**Inorganic Contaminants**

Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	P=	0.020 (90 <sup>th</sup> percentile)	0 to 0.023	Jul-17	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	P=	0 (90 <sup>th</sup> percentile)	0 to 0	Jul-17	No	Corrosion of household plumbing systems

**Disinfectant(s) & Disinfection Byproducts**

Chlorine (ppm)	MRDL = 4	MRDLG = 4	P=	1.28 (highest average)	1.00 to 1.80	2018	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	P=	54 (average)	13.7 to 86.7 (range of individual sites)	2018	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	P=	70 (average)	47.8 to 87.5 (range of individual sites)	2018	No	Byproduct of drinking water disinfection.

**This report will not be mailed unless requested. Copies are available at our office. Please contact our office if you would like to receive a copy by mail.**

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

**Notice by Perry County Water and Sewer District – System ID#: KY0970484  
Violation #: 2019-9613622**

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 07/01/2018-09/30/2018, we did not complete all monitoring by failing to report or correctly report testing for Haloacetic Acids and Trihalomethanes (OEL). Therefore, we could not verify the quality of your drinking water to the primacy agency during that time.\**

For the Stage 2 DBPR requirements we monitor for trihalomethanes (THM) and haloacetic acids (HAA). The standard for THM is 0.080 mg/L and the standard for HAA is 0.060 mg/L.

A calculation of analytical results is part of an Operational Evaluation Level Report (OEL) to determine the potential of exceeding these standards. The operational evaluation requirements are intended as an indicator of operational performance and to allow systems to identify proactive steps to remain in compliance. Failure to submit an evaluation report to the State in the required time frame is a violation and requires a public notification.

We failed to submit an OEL for the period 07/01/2018-09/30/2018. There is nothing you need to do. The OEL report has since been submitted and steps have been taken to ensure this does not occur again.

For more information, please contact Vernon Anderton at (606) 476-2414 or 10638 South Kentucky Highway 15 Scuddy, Ky 41760.

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**Notice by Knott County Water and Sewer District**  
**Violation #: 2019-9580818**

Our water system, Knott County Water and Sewer District, recently failed to comply with a required testing procedure. Even though this was not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

*\*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During August 2018, we did not complete all monitoring or testing for Total Organic Carbon, and therefore cannot be sure of the quality of your drinking water during that time.\**

Any sample we collect must be sent to and analyzed by a certified laboratory within a specified amount of time. We collected the sample on August 7, 2018. Due to incorrect location codes, an error was made for reporting of Total Organic Carbon. We have since spoken with our lab to ensure the samples are coded correctly.

There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

On November 27, 2018, the lab contacted the Division of Water to correct the sample code locations. The sample was analyzed and the Total Organic Carbon was acceptable.

For more information, please contact Jerry Hall at (606) 642-3582 or 7777 Big Branch Road, Vicco, Ky 41773.

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