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.

LaRue County Water District

Water Quality Report 2018

To request a paper copy call 270-325-3242.

Water System ID: KY0620237
Manager: Tim Bartley
270-325-3242
CCR Contact: Tim Bartley
270-325-3242

Mailing address:
6215 N. L&N Turnpike
Buffalo, KY 42716

Meeting location and time:
6215 N. L&N Turnpike
Second Monday each month at 7:00 PM

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product.

Larue County Water District provides purchased water from several suppliers, all of which treat surface water. The suppliers and their sources include: Green River Valley Water District withdraws from Green River and Rio Springs; Hodgenville Water Works withdraws from North Fork of Nolin River and Salem Lake; Bardstown Municipal Water Department withdraws from Sympson Lake and Beech Fork River; Campbellsville Municipal Water System withdraws from Green River Reservoir and City Reservoir; City of Greensburg withdraws from Green River and serves Green/Taylor Water District which sells to Larue County Water District. Each of these suppliers has conducted an analysis of susceptibility to contamination and the overall susceptibility is generally moderate. Areas of high concern include transportation corridors, underground storage tanks, agricultural land use, and waste generators. The respective Source Water Assessment Plans are available for review at each of the water producers. Contact information for our suppliers can be obtained by calling our office at 270-325-3242.

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).

For specific service areas contact the Larue County Water District. General service areas for each supplier:

Green River Valley - serves west of Highway 210.
Greensburg - serves east of Highway 210, Morning Star Road, Herbert Howell Road, and Dangerfield Road.
Campbellsville - serves Attilla Road area, Gleanings Road, and Stiles Road.
Hodgenville - serves Tonieville area, White City area, and Roanoke area.
Bardstown - serves Nat Rogers Road to Bluegrass Parkway and Lyons Station area.

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).

Information About Lead:

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.

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.

	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT	No more than 1 NTU*	GR	0.423	99		
* Representative samples	Less than 0.3 NTU in	G	0.04	100	No	Soil runoff
of filtered water	95% monthly samples	C	0.28	100		

Regulated Contaminant Test Results - Green River Valley (GR) Greensburg (G) Campbellsville (C)

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Alpha emitters [4000] (pCi/L)	15	0	G	1.3	1.3 to 1.3	2016	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	GR	1	1 to 1	2014	No	Erosion of natural deposits
Barium [1010] (ppm)	2	2	GR G C	0.031 0.01 0.02	0.031 to 0.031 0.01 to 0.01 0.02 to 0.02	2018	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	GR G C	0.6 0.8 0.8	0.6 to 0.6 0.8 to 0.8 0.8 to 0.8	2018	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	GR G C	1..39 0.6 0.6	1 to 3 0.6 to 0.6 0.6 to 0.6	2018	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	GR G C	1..39 1.58 1.2	1 to 3 1.06 to 2.14 1.07 to 1.69	2018	No	Naturally present in environment.

*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

Source Water Contaminants (untreated water) - Hodgenville (H) Bardstown (B) Greensburg (G)

Cryptosporidium [oocysts/L]	0	TT	H B G	9 3 3	12 24 3	2018	See Note Below	Human and animal fecal waste
		(99% removal)		(positive samples)	(no. of samples)			

Cryptosporidium is a microbial pathogen found in surface water. Cryptosporidium was detected in some of the raw water samples for Hodgenville, Bardstown, and Greensburg water systems. It was not detected in the finished water. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

Violation 2018-9646616 – *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 January 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.*
The operational evaluation level report (OEL) is intended as an indicator of operational performance. We failed to submit an OEL during the required time period. The report has since been submitted. There is nothing you need to do.
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.

	Allowable Levels	Source	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT	No more than 1 NTU*	H=	0.088			
* Representative samples	Less than 0.3 NTU in	B=	0.3	100	No	Soil runoff
of filtered water	95% monthly samples					

Regulated Contaminant Test Results - Hodgenville (H) Bardstown (B) Larue County (L)

Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Combined radium (pCi/L)	5	0	H=	1.6	1.6 to 1.6	2016	No	Erosion of natural deposits
Barium [1010] (ppm)	2	2	H= B=	0.02 0.02	0.02 to 0.02 0.02 to 0.02	2018	No	Drilling wastes; metal refineries; erosion of natural deposits
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	L=	0.1 (90^{th} percentile)	0 to 0.15	2018	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	H= B=	0.8 0.8	0.8 to 0.8 0.8 to 0.8	2018	No	Water additive which promotes strong teeth
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	L=	3 (90^{th} percentile)	0 to 7	2018	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	H= B=	0.7 1.1	0.7 to 0.7 1.1 to 1.1	2018	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	H= B=	1.76 2.41	1.22 to 2.27 2.02 to 3.23	2018	No	Naturally present in environment.
*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	L=	1.39 (highest average)	0.49 to 2.20	2018	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	L=	65 (average)	28 to 62 (range of individual sites)	2018	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	L=	75 (average)	30.7 to 77.8 (range of individual sites)	2015	No	Byproduct of drinking water disinfection.

HAA(ppb) Individual Site	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Violation
TT4	63.63	56.63	49.63	53.50	Yes
HA7	64.75	55.50	56.25	41.75	Yes

Violation 2018-9646615 - During the first quarter of 2018 our water system exceeded the MCL for HAA. The standard for HAA is 0.060 mg/L. The average at one site during the first quarter was 0.065 mg/L Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. We increased flushing and we are monitoring tank levels and flow patterns. A public notice was distributed for this violation.