2018 Water Quality Report ***Munfordville Municipal Water &Sewer*** **KY0500305**

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Meetings: City Hall 111 Main Street, Munfordville 1st Monday of each month 6:00pm cst

We purchase our water exclusivly from Green River Valley Water District. They treat surface water from the Green River and Rio Springs in Canmer Kentucky. The following is the Summary for the Green River Valley Water District: The source of raw water for the Green River Valley Water District is the Green River and Rio Springs in Hart County. An analysis of the overall susceptibility to contamination of the Green River Valley Water District's water supply indicated that this susceptibility is high. Sources of high potential impact include: Highway 31E and Route 569, underground storage tanks, agricultural land use, domestic water wells, and septic systems. This source assessment for GRVWD raw water supply is available through Barren River Development District P.O. Box 90005, Bowling Green, Ky., 42102, (270) 781-2381, Green River Valley Water District 85 East Les Turner Road Cave City Kentucky42127/ General Manager David Paige (270) 773-2135 or at Munfordville City Hall 111 Main Street Munfordville, Kentucky 42765/ Superintendent Tim Wilkerson (270) 524-570

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. Copies of this report are available upon request by contacting our office during business hours. **Green River Valley Water District = GR , Munfordville Municipal Water & Sewer = M**

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 * Representative samples of filtered water	No more tha no Less than 0.3 NTU in 95% monthly samples	GR	0.423	99	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
Radioactive Contaminants								
Combined radium (pCi/L)	5	0	GR	1	1 to 1	Feb-14	No	Erosion of natural deposits
Inorganic Contaminants								
Barium [1010] (ppm)	2	2	GR	0.031	0.031 to 0.031	Feb-18	No	Drilling wastes; metal refineries; erosion of natural deposits
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	M	0.0953 (90th percentile)	0 to 0.319	Sept-17	No	Corrosion of household plumbing systems
Fluoride [1025] (ppm)	4	4	GR	0.6	0.6 to 0.6	Feb-18	No	Water additive which promotes strong teeth
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	M	2 (90th percentile)	0 to 15	Sept-17	No	Corrosion of household plumbing systems
Nitrate [1040] (ppm)	10	10	GR	2.2	1.7 to 2.2	Feb-17	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	GR	1.39	1.00 to 3.00	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	M	1.97 (highest average)	1.46 to 2.50	2018	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	M	25 (average)	3 to 38 (range of individual sites)	2018	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	M	27 (average)	1 to 33.3 (range of individual sites)	2018	No	Byproduct of drinking water disinfection.

This report will not be sent to individual customers. It will be available at City Hall.

Notice of Violation 2019 - 9950614 / MOR MONTHLY OPERATING REPORT

Our system received a Notice of Violation (NOV) from our primacy agency, Kentucky Division of Water. **Description of Non Compliance**: The public water system failed to submit the Monthly Operating Report for the compliuance period 09/01/2018 - 09/30/2018. **Comments**: MOR Failure to submit the September 2018 MOR. **Remedial Measures**: Submit MOR, if available, to the Division of Water within (30) days of receipt of this Notice of Violation. Perform Public Notification and the required Certification. Detail this NOV in the 2017 Consumer Confidence Report. There were no health effects due to this NOV.

Notice of Violation 2019 - 9950615 / 0999 CHLORINE

Our water system violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

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 09/01/2018 - 09/30/2018 we did not complete all monitoring or testing for 0999 CHLORINE and therefore cannot be sure of the quality of your drinking water during that time.

There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply.

What happened? Who is at risk? What is being done?

Our system received a Notice of Violation (NOV) from our primacy agency, Kentucky Division of Water. **Description of Non Compliance**: 401 KAR 8:150, Sec 1 CHLORINE The public water system failed to submit adequate sampling results to meet CHLORINE summary requirements for the compliuance period. **Comments**: SDRD : Failed to collect and report chlorine residual samples throughout the distribution system (MOR pg.7) for the September 2018 monitoring period. **Remedial Measures**: Submit any overdue or unreported sampling analytical results, if available, for the compliance period. Perform Public Notification and the required Certification. Detail this NOV in the 2018 Consumer Confidence Report. There were no health effects due to this NOV.

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 of Violation 2016 - 9549519 / 0300 IESWTR, This violation was received by Green River Valley WD

Our water system violated one or more drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

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 10/01/2015 10/30/2015 we did not complete all monitoring or testing'for 0300 IESWTR and therefore cannot be sure of the quality of your drinking water during that time.

There is nothing you need to do at this time. You do not need to use an alternative (e.g., bottled) water supply.

What happened? Who is at risk? What is being done?

Description of Noncompliance: 401 KAR 8:150, Sec 3 ISWTR The public water system submitted fewer than 90% of the required number of analytical results for TURBIDITY or failed to submit the results by the 10th of the following month for compliance period 10/01/2015-10/31/2015. **Comments:** TURBIDITY: Failed to monitor IFE. The water system did not submit Plant summary form that had individual filter Effluent turbidity information for compliance. **Remedial Measures**: Submit any undue or unreported sampling results, if available for the compliance period 10/01/2015-10/31/2015. Perform public notification and the required certification. Detail this NOV in the 2018 CCR. There were no health effects do this administrative oversight.

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.