2020 Water Quality Report

Symsonia Water District

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Meetings: 11105 State Route 131

Symsonia, Ky 42082

2nd Tuesday for each month @ 5:30 PM

The Symsonia Water District wells are classified as ground water. The sources of your drinking water are two wells drilled 85 feet into an underground source called the Pliocene Aquifer. An analysis of the overall susceptibility to contamination within the wellhead protection area with the following ratings 2 high, 3 medium, and 2 low. Sources of high potential impact include: septic systems, agricultural land uses, a cemetery, underground storage tanks and highway 131 and 534. This is a summary of the susceptibility analysis. The complete Susceptibility Analysis Report is available at the Purchase Area Development District, 1002 Medical Drive Mayfield, Kentucky 42066, (270)247-7171. Also available at the Kentucky Division of Water, 300 Sower Boulevard Frankfort, Kentucky 40601, (502)564-3410. You may also contact us at our Water District office (270) 851-4470. Symsonia Water District is located at 11105 KY-131, Symsonia Kentucky 42082.

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.

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.

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.

Regulated Contamina	nt Test Re	sults	Symsonia V	Vater Di	stric	t			
Contaminant			Report	Range			Date of	Violation	Likely Source of
[code] (units)	MCL	MCLG	Level	of Detection		T	Sample	1.0000000000000000000000000000000000000	Contamination
Inorganic Contaminan	its	·	7470						Contamination
Barium									20 10
[1010] (ppm)	2	2	0.032	0.032	to	0.032	Mar-20	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride									
[1025] (ppm)	4	4	0.67	0.67	to	0.67	Mar-20	No	Water additive which promotes strong teeth
Mercury								<del></del>	Erosion of natural deposits;
[1035] (ppb)	2	2	0.2	0.2	to	0.2	Mar-20	No	refineries and factories; landfills; runoff from cropland
Nitrate									Fertilizer runoff; leaching from
[1040] (ppm)	10	10	3.02	3.02	to	3.02	Mar-20	No	septic tanks, sewage; erosion of natural deposits
Selenium		200000000000000000000000000000000000000							Discharge from petroleum and
[1045] (ppb)	50	50	1.2	1.2	to	1.2	Mar-20	No	metal refineries or mines; erosion of natural deposits
Disinfectants/Disinfect	ion Bypro	ducts and Pr	recursors						*
Chlorine	MRDL	MRDLG	1.12						
(ppm)	= 4	= 4	(highest average)	0.71	to	1.43	2020	No	Water additive used to control microbes.
HAA (ppb) (Stage 2)			6						An an arrestorement
[Haloacetic acids]	60	N/A	(high site)	3	to	6	2020	No	Byproduct of drinking water
(Annual Sample)		V-94-9-30		(range of individual sites)				disinfection	
TTHM (ppb) (Stage 2)			32			,			
[total trihalomethanes]	80	N/A	(high site)	19	to	32	2020	No	Byproduct of drinking water
(Annual Sample)			35 (355) #1	(range o	f indiv	idual sites)		(20/638)	disinfection.
	2 102 21								
Household Plumbing C		nts	_						
Copper [1022] (ppm)	AL =		0.422						Corrosion of household plumbing
sites exceeding action level	1.3	1.3	(90 <sup>th</sup>	0.0057	to	2.39	Aug-20	No	systems
<u> </u>			percentile)						Participant PRESCO

## This report will not be sent individual customers.

Notice of Violation 2021 - 9635011 34 MONITOR GWR TRIGGERED / ADDITIONAL, MAJOR Tier Level: 3

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Symsonia Water District

Our water system violated drinking water requirements over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we are doing (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 08/01/20-08/31/20 we did not complete all monitoring or testing for Raw Source/ Well E. COLI and therefore cannot be sure of the quality of your drinking water during that time.\*

What should I do?

There is nothing you need to do at this time.

What is being done?

Description of Non Compliance: 401 KAR 8:150, Section 10 E. COLI " System failed to take a triggered raw sample after a total coliform sample on 08/05/20. Corrective Actions: The Raw water samples were taken after our system was notified of the violation. We performed Public Notification and Certification as required by our primacy agency, KY Division of Water. A CT calculation has also been completed and our system is not required to take a Raw E. Coli if there is another similar issue with positive samples.

For more information, please contact Jim Waid at (270) 851-4470 or 11105 State Route 131, Symsonia, KY 42082.

\*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.\*