2018 Water Quality Report

North Mc Lean County Water District

KY0300320

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Meetings: 217 HILL STREET, LIVERMORE, KY 42352 Public Meetings 3rd Mon. each month at 7:00 pm

We purchase the majority of our water from the Mc Lean County Regional Water Commission (MCRWC). MCRWC draws its water from the Green River, that is classified as surface water. Breif Source Water Assessment Summary indicates overall susceptibility is generally moderate. Potential sources of concern include: bridges, row crops, water plant, 6 major roads, 14 oil and gas wells, woodlands, agricultural activity. Our second largest supplier of water is West Daviess County Water District. They purchase water from Owensboro Municipal Utilities(OMU). The source for OMU is groung water wells on the Ohio River Alluvium(sand and gravel) in Daviess County. An analysis of the overall susceptibility to contamination of the OwensboroMuncipal Utilities' water supplu indicated that this susceptibility is moderate. Sources of porential impact include: above ground storage tanks, underground tanks,, professinal offices, dry cleaners, food service facilities, quaries, hazardous material storage, and municipal land use. Susceptibility Analysis Reports are available at the Green River Area Development District(GRADD)(270-926-4433). Ohio County Water District is an alternate source of water.

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, (μ 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.

A= Mc Lean County Regional Water Commission, B= West Daviess County Water District / Owensboro Municipal Utilities (OMU) C= North Mc Lean County Water District

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.

lifetime to have a one-in-a-mil	lion chance of	of having the o	lescril	oed health ef	fect.	1				
	Allowable Levels		e	Highest Single Measurement			Lowest	Violation		
			Source				Monthly % 100 100	No No	Likely Source of Turbidity Soil runoff	
Turbidity (NTU) TT	No more th	an 1 NTU*	1 NTU* A=		0.26					
* Representative samples	Less than 0	Less than 0.3 NTU in		0.18						
of filtered water	95% monthly samples									
Regulated Contaminan										
Contaminant			9	Report		Ran	ge	Date of	Violation	Likely Source of
F . 1.17 . 24 .)	MOT	MCLG Z			-f D-44		Sample			
[code] (units) Radioactive Contamina	MCL MCLG		S	Level		f Detection			Contamination	
		0	L	2	1 2		2	M 1 15	No	1
Alpha emitters	15	0	B=	3	3	to	3	March-15	No	Erosion of natural deposits
[4000] (pCi/L)	4									
Inorganic Contaminan	LS	Ι	Ι_		1 -				L	1
Arsenic			B=	1.12	0	to	1.12	June-17	No	Natural erosion; runoff from
[1005] (ppb)	10	N/A								orchards or glass and electronics
										production wastes
Barium			A=	0.026	0.026	to	0.026	March-18	No	Drilling wastes; metal refineries;
[1010] (ppm)	2	2	B=	0.019	0.01	to	0.019	June-17	No	erosion of natural deposits
Copper [1022] (ppm)	AL =			0.046						Corrosion of household plumbing
sites exceeding action level	1.3	1.3	C=	(90 th	0	to	0.12	Aug-17	No	systems
0				percentile)						5, 2.2
Fluoride			A=	0.7	0.7	to	0.7	March-18	No	W-4
[1025] (ppm)	4	4	B=	0.71	0.67	to	0.71	June-17	No	Water additive which promotes strong teeth
										strong teeth
Lead [1030] (ppb)	AL=			2						
sites exceeding action level	15	0		(90 th	0	to	7	Aug-17	No	Corrosion of household plumbing
0				percentile)						systems
Nitrate			A=	1.48	0.911	to	1.48	March-18	No	Fertilizer runoff; leaching from
[1040] (ppm)	10	10								septic tanks, sewage; erosion of
										natural deposits
Disinfectants/Disinfecti	on Bypro	ducts and l	Prec	ursors	<u>I</u>					1
Total Organic Carbon (ppm)	T		A=	1.71	1.33	to	2.89	2018	No	
(report level=lowest avg.	TT*	N/A								Naturally present in environment.
range of monthly ratios)										
*Monthly ratio is the % TOC r	emoval achie	eved to the %	TOC	removal regi	uired Annu	ıal av	erage must he	1.00 or greate	r for compli	ance
Chlorine	MRDL	MRDLG	100	1.34			erage mast se	1.00 or ground	Tor compr	<u> </u>
(ppm)	= 4	= 4	C=	(highest	0.60	to	2.10	2018	No	Water additive used to control
(ррш)	_ '	_ '		average)	0.00		2.10	2010	110	microbes.
HAA (ppb) (Stage 2)				uverage)	1				 	
[Haloacetic acids]	60	N/A	C=	55	27	to	58	2018	No	Byproduct of drinking water
[Haloacetic acids]	00	IV/A	C-				vidual sites)	2016	110	disinfection
TTIM (nnh) (St 2)				(average)	(range 0)	1 111Ul	viduai SILES)			
TTHM (ppb) (Stage 2)	00	NT/A		E 4	20		06	2010	N _o	Byproduct of drinking water
[total trihalomethanes]	80	N/A	C=	54	29	to	86	2018	No	disinfection.
			<u> </u>	(average)	(range of	ı ındı	vidual sites)			
Othor Contominants										
Other Contaminants	0	TYT	Ι,	1 .		1	4	2010	No	T
Cryptosporidium	0	TT	A=	1	l		4	2018	No	
[oocysts/L]										Human and animal fecal waste
	1		1	Ī		1			1	1

Cryptosporidium is a microbial pathogen found in surface water. Cryptosporidium was detected in 1 sample of 4 collected from the raw water source for our water system. 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.

(no. of samples)

(positive samples)

(99% removal)

Cryptosporidium. We constantly monitor the water supply for various contaminants. We have detected cryptosporidium in some of the samples tested. We believe it is important for you to know that cryptosporidium may cause serious illness in 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. These people should seek advice from their health care providers.

Cryptosporidium. We are required to monitor the source of your drinking water for Cryptosporidium in order to determine whether treatment at the water treatment plant is sufficient to adequately remove Cryptosporidium from your drinking water.

Notice of Violation 2018 - 1 / MONITORING, routine (IESWTR/LT1), Major. This Notice of Violation was given to Mc Lean County Regional Water Commission

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 05/01/2018 - 05/31/2018 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 Non Compliance: 401 KAR 8:150, Sec 3 IESWTR The public water system submitted fewer than 90% of the required analytical results for turbidity or failed to submit the results by the 10th of the following month for the compliance period 05/01/2018-05/31/2018.

Comments: Due to a missing summary sheet in the May 2018 MOR the following data was not submitted to the department: TURB: Water system did not submit individual filter effluent turbidity (I FE) report or the combined filter effluent turbidity (CFE) summary information. EPRD: Water system did not submit the entry point residual disinfection concentration (EPRD) summary information.

Remedial Measures: Submit any overdue or unreported sampling analytical results, if available, for the compliance. 05/01/2018-05/31/2018. Perform public notification and the required certification. The missing sections of the MOR were sent to our primacy agency. We now send the MOR certified mail And it is reviewed to ensure accuracy and completeness. There were no health effects due to 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.

This report will not be sent to individual customers. It will be available at our water office.