## 2018 Water Quality Report

## Henderson County Water District

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Meetings: 655 South Main Street, Henderson KY 42420 Public Meetings 4th Wensday of the month, 6:30 P.M.

Henderson County Water District (HCWD) purchases water from the Henderson Water Utility (HWU). HWU treats surface water from the Ohio and Green Rivers. Rivers are classified as surface water. The areas around your water sources are mostly residential but also contains some industrial activity. The final source water assessment for this system has been completed and is contained in the Henderson County Water Supply Plan. The plan is available for inspection at HWU, the GRADD office in Owensboro, Ky or from HCWD. An analysis of the susceptibility of Henderson's Ohio River and Green River water supplies to contamination indicates that this susceptibility is generally moderate. However, there are areas of high concern. Potential contaminant sources of concern include bridges, waste generators, transporters, landfills, railroad, row crop land, urban and recreational grass coverage, and sewer lines. Each of these are rated as high in a susceptibility because of the contaminant type, proximity to the intakes, and chance of release.

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. A=Henderson Water Utility North, B= Henderson Water Utility South, C= Henderson 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.

	Allowable		Source	Highest Single			Lowest	Violation			
	L	evels	Sou	Measurement			Monthly %		Likely Source of Turbidity		
Turbidity (NTU) TT	No more than 1 NTU* Less than 0.3 NTU in 95% monthly samples		A=	0.092			100	No	Soil runoff		
* Representative samples			B=	0.	0.0134 100		100	No			
of filtered water											
Regulated Contaminan	t Test Res	sults									
Contaminant			rce	Report		Ran	ige	Date of	Violation Likely Source of		
code] (units) MCL MCLO		MCLG	Source	Level	of Detection			Sample		Contamination	
Radioactive Contamina	nts							•		•	
Combined radium	5	0	A=	1.4	1.4	to	1.4	41852	No		
(pCi/L)			B=	1.1	1.1	to	1.1	Aug-14	No	Erosion of natural deposits	
								Ü			
Inorganic Contaminant	ts									•	
Barium			A=	0.04	0.04	to	0.04	43101	No	D 'II'	
[1010] (ppm)	2	2	B=	0.027	0.027	to	0.027	43101	No	Drilling wastes; metal refineries; erosion of natural deposits	
										crosson or natural deposits	
Copper [1022] (ppm)	AL =			0.037						Commission of household all all all a	
sites exceeding action level	1.3	1.3	C=	(90 <sup>th</sup>	0.0032	to	0.0612	June-18	No	Corrosion of household plumbing systems	
0				percentile)						systems	
Fluoride			A=	0.69	0.69	to	0.69	43101	No		
[1025] (ppm)	4	4	B=	0.63	0.63	to	0.63	43101	No	Water additive which promotes	
										strong teeth	
Nitrate			A=	1.3	1.3	to	1.3	43101	No	Fertilizer runoff; leaching from	
[1040] (ppm)	10	10	B=	0.05	0.05	to	0.05	43101	No	septic tanks, sewage; erosion of	
										natural deposits	
Disinfectants/Disinfecti	on Bypro	ducts and	Prec	ursors	·			<u>I</u>		•	
Total Organic Carbon (ppm)			A=	1.41	-0.59	to	2.77	2018	No		
(report level=lowest avg.	TT*	N/A	B=	1.99	1.13	to	2.59	2018	No	Naturally present in environment.	
range of monthly ratios)											
*Monthly ratio is the % TOC re	emoval achie	ved to the % 7	OC r	emoval requi	red. Annua	l ave	rage must be	1.00 or greater	for compliar	ace.	
Chlorine	MRDL	MRDLG		1.57							
(ppm)	= 4	= 4	C=	(highest	0.57	to	2.07	2018	No	Water additive used to control microbes.	
'				average)							
Chlorite	1	0.8	A=	0.630	0.29	to	0.70	2018	No		
			B=	0.580	0.02	to	0.65	2018	No	Byproduct of drinking water	
(ppm)				(average)						disinfection.	
Chlorine dioxide (ppb)	MRDL	MRDLG	A=	200	0	to	200	2018	No	Water additive used to control microbes.	
41.7	= 800	= 800	B=	160	0	to	160	2018	No		
HAA (ppb) (Stage 2)					-						
[Haloacetic acids]	60	N/A	C=	55	27	to	77	2018	No	Byproduct of drinking water	
		,		(average)			vidual sites)			disinfection	
ΓΤΗΜ (ppb) (Stage 2)				(3,0,4,6)	\1.4.150 OI						
total trihalomethanes]	80	N/A	C=	72	27	to	125	2018	No	Byproduct of drinking water	
	30	1.//11		(average)			-	2010	1 1,0	disinfection.	

Unregulated Contaminants (UCMR 4)		average range (ppb)			ppb)	date
HAA5	C=	53.73	39.2	to	81.6	Oct-18
HAA6Br	C=	9.503	4.53	to	18.6	Oct-18
HAA9	C=	62.977	46.4	to	99.1	Oct-18

Your drinking water has been sampled for a series of unregulated contaminants. Unregulated contaminants are those that EPA has not established drinking water standards. There are no MCLs and therefore no violations if found. The purpose of monitoring for these contaminants is to help EPA determine where the contaminants occur and whether they should have a standard. As our customers, you have a right to know that these data are available. If you are interested in examining the results, please contact our office during normal business hours.

This Report will not be sent to individual customers. It will be available at our Water Office.

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.