2020 Water Quality Report

South Hopkins Water District

KY0540406

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Address: P O Box 487 Dawson Springs, KY 42408

Meetings: 129 S. Main St., Dawson Springs, KY

2nd Tuesday of each month 6:00 pm

We purchase water from Dawson Springs and the City of Madisonville. Our customers in the Grapevine area recieve water from the City of Madisonville. Dawson Springs treats surface water from Lake Beshear. An analysis of the overall susceptibility to contamination of the Dawson Springs water source indicates that the susceptibility is generally moderate. Sources of potential impact include: use and storage of pesticides and herbicides; wastewater discharges; spills along roadways; and illegal dumping. The purchased water from the City of Madisonville serves our customers in the Grapevine area. Madisonville treats surface water from Lake Pee Wee and the Green River. An analysis of the overall susceptibility to contamination of Madisonville's water source indicates that the potential of contamination is generally high. Sources of potential impact include: pesticide & herbicide application; fertilizer; chemical storage facilities; landfills; oil/gas wells, roadways, and wastewater discharges. The complete Source Water Assessments are available at the Pennyrile Area Development District office in Hopkinsville, KY.

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.

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.

Note	A= Dawson Springs Water & Sewer, B= Madisonville Light & Water, C= South Hopkins Water District										
Borganic Contaminants	Regulated Contaminant Test Results South Hopkins Water District										
Borganic Contaminants	Contaminant			rce	Report	ort Range		Date of	Violation	Likely Source of	
Barium Parium	[code] (units)	MCL	MCLG	Sou	Level	of Detection		Sample		Contamination	
1010 (ppm)											
Plaoride	Barium			A=	0.019	0.019 to	0.019	,Feb-20	No	Drilling wastes; metal refineries;	
1025 (ppm)	[1010] (ppm)	2	2	B=	0.019	0.019 to	0.019	Feb-20	No	erosion of natural deposits	
Disinfectants/Disinfection Bypro-Ucts and Precursors	Fluoride			A=	0.75	0.75 to	0.75	Feb-20	No	Water additive which promotes	
Total Organic Carbon (ppm) Creport level=lowest avg. TT* N/A B= 1.84 1.62 to 2.1 2020 No Naturally present in environment.	[1025] (ppm)	4	4	B=	0.68	0.68 to	0.68	Feb-20	No	strong teeth	
TT*	Disinfectants/Disinfection Byproducts and Precursors										
TT*	Total Organic Carbon (ppm)			A=	1.84	1.62 to	2.1	2020	No		
Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance. Chlorine (ppm)	(report level=lowest avg.	TT	N/A	B=	1.32	1.14 to	1.71	2020	No	Naturally present in environment.	
Chlorine (ppm)	range of monthly ratios)										
(ppm)	*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.										
(ppm)	Chlorine	MRDL	MRDLG	C=	1.51						
Chlorine (ppm)	(ppm)	= 4	= 4		(highest	0.81 to	1.99	2020	No		
Chlorite (ppm) Chlorine dioxide (ppb) MRDL					average)					microbes.	
Chlorine dioxide (ppb)	Chlorite	1	0.8	A=		0.18 to	0.78	2020	No	Byproduct of drinking water	
Chlorine dioxide (ppb) MRDL = 800 MRDLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLG = 800 MROLG = 900 MROLG = 800 MROLG	(ppm)								No	disinfection.	
Chlorine dioxide (ppb) MRDL = 800 MRDLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLG = 800 MROLG = 92020 MRO Byproduct of drinking water disinfection. MROLG = 800 MROLG = 900 MROLG = 800 MROLG					(average)						
HAA (ppb) (Stage 2) [Haloacetic acids] 60 N/A C= 39 20 to 69 (range of individual sites) TTHM (ppb) (Stage 2) [total trihalomethanes] 80 N/A C= 49 29 to 71 2020 No Byproduct of drinking water disinfection Household Plumbing Contaminants Copper [1022] (ppm) AL = 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	Chlorine dioxide (ppb)	MRDL	MRDLG	A=		0 to	800	2020	No	Water additive used to control	
[Haloacetic acids] 60 N/A C= 39 20 to 69 2020 No Byproduct of drinking water disinfection TTHM (ppb) (Stage 2) [total trihalomethanes] 80 N/A C= 49 29 to 71 2020 No Byproduct of drinking water disinfection. Household Plumbing Contaminants Copper [1022] (ppm) sites exceeding action level 1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1		= 800	= 800							microbes.	
[Haloacetic acids] 60 N/A C= 39 20 to 69 2020 No Byproduct of drinking water disinfection TTHM (ppb) (Stage 2) [total trihalomethanes] 80 N/A C= 49 29 to 71 2020 No Byproduct of drinking water disinfection. Household Plumbing Contaminants Copper [1022] (ppm) sites exceeding action level 1 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1	HAA (ppb) (Stage 2)										
TTHM (ppb) (Stage 2) [total trihalomethanes]		60	N/A	C=	39	20 to	69	2020	No	**	
[total trihalomethanes] 80 N/A C= 49 29 to 71 2020 No Byproduct of drinking water disinfection. Household Plumbing Contaminants Copper [1022] (ppm) sites exceeding action level 1 .3 1.3 1.3					(average)	(range of individual sites)				distillection	
Turbidity (NTU) TT Allowable Septentiative samples Levels Substant of the water and not a contaminant of the contamin	TTHM (ppb) (Stage 2)										
Household Plumbing Contaminants Copper [1022] (ppm)	[total trihalomethanes]	80	N/A	C=	49	29 to	71	2020	No	**	
Copper [1022] (ppm) sites exceeding action level 1.3 1.3 1.3 C= 0.137 (90 th percentile) 0.0035 to 0.154 July-20 No Corrosion of household plumbing systems					(average)	(range of individual sites)				distrilection.	
Copper [1022] (ppm) sites exceeding action level 1.3 1.3 1.3 C= 0.137 (90 th percentile) 0.0035 to 0.154 July-20 No Corrosion of household plumbing systems		•							•		
sites exceeding action level 1.3 1.3 1.3 (90 th percentile) 0.0035 to 0.154 July-20 No Systems Other Constituents	Household Plumbing Contaminants										
Sites exceeding action level 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	Copper [1022] (ppm)	AL =		C=	0.137					G : 61 1111 1:	
Other Constituents Turbidity (NTU) TT * Representative samples Levels No more than 1 NTU* clarity of the water and not a contaminant * Representative samples Less than 0.3 NTU in B= Percentile Percen	sites exceeding action level	1.3	1.3		(90 th	0.0035 to	0.154	July-20	No		
Turbidity (NTU) TT * Representative samples * Representative samples * Representative samples * No more than 1 NTU* clarity of the water and not a contaminant * Contaminant * Allowable * Highest Single Measurement Monthly % Lowest Monthly % Likely Source of Turbidity * No Soil runoff	1				percentile)					systems	
* Representative samples Levels Measurement Monthly % Likely Source of Turbidity Turbidity is a measure of the clarity of the water and not a contaminant Less than 0.3 NTU in B= 0.04 No more than 1 NTU* Less than 0.3 NTU in B= 0.04 No Soil runoff	Other Constituents	-			9			9			
Turbidity is a measure of the clarity of the water and not a contaminant No more than 1 NTU* Less than 0.3 NTU in B= 0.27 100 No Soil runoff	Turbidity (NTU) TT	Allowable		rce			Lowest	Violation			
Turbidity is a measure of the clarity of the water and not a contaminant No more than 1 NTU* Less than 0.3 NTU in B= 0.27 100 No Soil runoff	* Representative samples	Levels		Sou			Monthly %		Likely Source of Turbidity		
clarity of the water and not a Less than 0.3 NTU in B= 0.04 100 No Soil runoff		No more than 1 NTU*		A=			-	No			
contaminant. 95% monthly samples	•	Less than 0.3 NTU in		B=	0.04		100	No		Soil runoff	
	contaminant.	95% monthly samples									

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

Notice of Violation 2021-9950213

Our water system recevied a notice of violation (NOV) from our primacy agency, Kentucky Division of Water. In September of 2020 we failed to conduct a Level 1 Assessment. We had two positive bacterilogical samples, and that required us to do a Level 1 Assessment. The Assessment should have been received by the Division of Water by 10/1/2020. We completed the Level 1 Assessment. We performed public notice and required certification.