2018 Water Quality Report

South Hopkins Water District

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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.

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 = Dawson Springs, B = South Hopkins Water

District, C=Madisonville (Grapevine Area)

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 c		bed health ef	tect.						
	Allowable Levels		rce	Highest Single Measurement			Lowest	Violation			
			Source				Monthly %		Likely Source of Turbidity		
Turbidity (NTU) TT	No more th	e than 1 NTU* A=		0.09			100	No			
* Representative samples	Less than 0.3 NTU in		C=	0.06			100 No		Soil runoff		
of filtered water	95% monthly samples										
Regulated Contaminan	t Test Res	sults									
Inorganic Contaminant	ts										
Arsenic										Natural erosion; runoff from	
[1005] (ppb)	10	N/A	C=	0.6	0.6	to	0.6	No	Feb-18	orchards or glass and electronics production wastes	
Barium			A=	0.024	0.024	to	0.024	No	Feb-18	D.:11:	
[1010] (ppm)	2	2	C=	0.025	0.025	to	0.025	No	Feb-18	Drilling wastes; metal refineries; erosion of natural deposits	
Copper [1022] (ppm)	AL =			0.129							
sites exceeding action level	1.3	1.3	B=	(90 th	0	to	0.224	No	July-17	Corrosion of household plumbin systems	
0				percentile)						systems	
Fluoride			A=	0.7	0.7	to	0.7	No	Feb-18	***	
[1025] (ppm)	4	4	C=	0.7	0.7	to	0.7	No	Feb-18	Water additive which promotes strong teeth	
Nitrate										Fertilizer runoff; leaching from	
[1040] (ppm)	10	10	C=	0.11	0.11	to	0.11	No	Feb-18	*	
Disinfectants/Disinfecti	on Bypro	ducts and	Prec	ursors	•				•	•	
Total Organic Carbon (ppm)			A=	1.56	1.27	to	2.08	No	2018		
(report level=lowest avg.	TT*	N/A	C=	1.35	1.11	to	1.95	No	2018	Naturally present in environment.	
range of monthly ratios)											
*Monthly ratio is the % TOC r	emoval achi	eved to the %	TOC	removal requ	aired. Annua	al av	erage must be	1.00 or greate	r for compli	ance.	
Chlorine	MRDL	MRDLG		1.29						Water additive used to control	
(ppm)	= 4	= 4	В=	(highest average)	0.71	to	1.97	No	2018	microbes.	
Chlorite	1	0.8	A=	0.560	0.07	to	0.58	No	2018	Byproduct of drinking water	
(ppm)				(average)						disinfection.	
HAA (ppb) (Stage 2)										D 1	
[Haloacetic acids]	60	N/A	B=	58	25	to	81	No	2018	Byproduct of drinking water disinfection	
				(average)	(range of	indi	vidual sites)			uisinitetion	
TTHM (ppb) (Stage 2)										D 1 (C1' 1'	
[total trihalomethanes]	80	N/A	B=	66	33	to	99	No	2018	Byproduct of drinking water disinfection.	
				(average)	(range of indi		vidual sites)			dismirection.	

Madisonville

Unregulated Contaminants (UCMR 4)		average	range (ppb)			date	
Manganese	C=	0.82	0	to	1.3	July-18	
HAA5	C=	31.38	16.8	to	49.7	Oct-18	
HAA6Br	C=	4.91	0.93	to	8.4	Oct-18	
HAA9	C=	36.13	17.7	to	56.8	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.

NOTICE OF VIOLATION / 2019 - 9950211

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 03/01/2018-03/31/2018 we did not complete all monitoring or testing 8000 REVISED TOTAL COLIFORM RULE (RTCR) 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?

NOTICE OF VIOLATION / 2019 - 9950211 8000 REVISED TOTAL COLIFORM RULE (RTCR) **Description of NonCompliance**: The public water system failed to submit an adequate number of bacteriological samoling results for the compliance period 03/01/2018 - 03/31/2018. **Comments**: 8 out of 9 samples were recoeved. **Remedial Actions**: Submit any overdue or unreported sampling results, if available, for the compliance period 03/01/2018 - 03/31/2018. Perform Public Notification and the required certification. Detail this violation in the 2018 CCR. We have submitted the missing data.

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 / 2019 - 9950212 35 FAILURE SUBMIT OEL REPORT FOR HAA5

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 07/01/2018 - 09/30/18 we did not complete all monitoring or testing for 2456 TOTAL HALOACTETIC ACIDS (HAA5) / OEL REPORT 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?

NOTICE OF VIOLATION / 2019 - 9950212 35 FAILURE SUBMIT OEL REPORT FOR HAA5 Description of NonCompliance: The public water system failed to submit Operational Evauluation Levels (OEL's) report for compliance period 07/01/2018 - 09/30/2018 . Comments: Failed to submit 2nd qtr. OEL 90 daysafter the quarter. The OEL Report assists system in trending Disinfection By Products and aids in compliance. Remedial Actions: Submit any overdue or unreported OEL Reports,if available,for the compliance period 07/01/2018 - 09/30/2018. Perform Public Notification and the required certification. Detail this violation in the 2018 CCR. We have submitted the missing OEL Report. We now review the data using a spreadsheet to insure compliance.

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.