Louisa Water Department Water Quality Report 2019

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Louisa Water Department treats surface water from the Big Sandy River. An analysis of the system's susceptibility to contamination yields an overall moderate ranking. Of the 206 potential contaminant sites, within the protection areas of the intake, 57 received a high rating, 122 received a medium rating, and 27 received a low risk rating. Those ranked high include land used for row crops, bridges and culverts, major roadways, and oil and gas activities. Agricultural activity in this watershed is negligible and, therefore, the use of pesticides and herbicides and the danger of runoff contamination is greatly reduced. The complete Source Water Assessment is available for review during normal business hours at the Louisa Water Department.

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).

Information About Lead:

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 $(p\dot{C}i/L)$ - 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.

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The data presented in this rej	port are fro	om the most re	cent testing do	ne in accordance with adm	inistrative reg	gulations in 4	401 KAR Chapter 8. As	
authorized and approved by H	EPA, the St	tate has reduced	d monitoring re	equirements for certain con	taminants to	less often th	han once per year because the	
concentrations of these cont	aminants a	re not expecte	d to vary signif	ficantly from year to year.	Some of the	data in this	table, though representative,	
may be more than one year o					cting our of	fice during	g business hours.	
Regulated Contaminant	<u>Fest Res</u> (ılts	Louisa Wat	ter Department	-			
Contaminant			Report	Range	Date of	Violation	Likely Source of	
[code] (units)	MCL	MCLG	Level	of Detection	Sample		Contamination	
Inorganic Contaminants	-		-	•				
Fluoride								
[1025] (ppm)	4	4	0.74	0.74 to 0.74	May-19	No	Water additive which promotes strong teeth	
Nitrate							Fertilizer runoff; leaching	
[1040] (ppm)	10	10	0.22	0.22 to 0.22	Sep-19	No	from septic tanks, sewage; erosion of natural deposits	
Disinfectants/Disinfection	on Bypro	ducts and Pre	cursors					
Fotal Organic Carbon (ppm)			1.48				Naturally present in environment.	
(measured as ppm, but	TT*	N/A	(lowest	1.00 to 2.64	2019	No		
reported as a ratio)			average)	(monthly ratios)				
*Monthly ratio is the % TO	C removal	achieved to the	% TOC remo	val required. Annual averag	e must be 1.0	0 or greater	for compliance.	

reported as a ratio)			average)	(mont	ny ratios)			
*Monthly ratio is the % TO	C removal	achieved to the	% TOC remov	al required.	Annual averag	e must be 1.00) or greater	for compliance.
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.00 (highest average)	0.35 te	o 1.41	2019	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	23 (high site average)	9 to (range of in	o 32 ndividual sites)	2019	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	64 (high site average)	26.1 to (range of in	o 96.5 ndividual sites)	2019	No	Byproduct of drinking water disinfection.
Household Plumbing Co	ntaminan	ts						·
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.182 (90 th percentile)	0.007 te	0.556	Aug-18	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 1	AL = 15	0	3 (90 th percentile)	0 te	o 16	Aug-18	No	Corrosion of household plumbing systems
Other Constituents								
Turbidity (NTU) TT	Allowable		Highest Single		Lowest	Violation		
* Representative samples	1	Levels Measureme		ent Monthly %			Likely Source of Turbidity	
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 95% of monthly samples		0.08		100	No	Soil runoff	

Secondary contaminants do not have a direct impact on the health of consumers and are not required in the Consumer Confidence Report. They are being included to provide additional information about the quality of the water.

Secondary Contaminant	Maximum Allowable	Report	Range	Date of
Secondary Contaminant	Level	Level	of Detection	Sample
Chloride	250 mg/l	22.5	22.5 to 22.5	Mar-19
Corrosivity	Noncorrosive	-1.32	-1.32 to -1.32	Mar-19
Fluoride	2.0 mg/l	0.92	0.92 to 0.92	Mar-19
pH	6.5 to 8.5	7.48	7.48 to 7.48	Mar-19
Silver	0.1 mg/l	0.004	0.004 to 0.004	Mar-19
Sulfate	250 mg/l	121.3	121.3 to 121.3	Mar-19
Total Dissolved Solids	500 mg/l	306	306 to 306	Mar-19

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