## 2021 Water Quality Report

## Whitesburg Water Plant

KY0670466

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Meetings: Whitesburg City Hall 2nd Tuesday of each month at 6:30 pm

The City of Whitesburg provides water treatment and distribution service through the city. Our water source is surface water from the North Fork of the Kentucky River. A source water assessment indicates that the susceptibility of the Whitesburg water supply to contamination is generally moderate. However, there are a few areas of concern. Several major highways and railroads run throughout the entire protection area. Fifeteen highway bridges are within close enough proximity to the intake to pose an immediate threat in the event of the release of hazardous materials. Other areas of cocern are the close proximity of several underground storage tanks and business activities that have the potential for release of hazardous chemicals. There appears to be some instances of straight pipe sewage discharges near the intake, but the majority of these discharges are not an immediate threat. Mining activity and oil and gas wells are prevalent throughout the protection area; however, none are within one-half mile of the intake. Activities and land use within the watershed can pose potential risks to your drinking water. The complete source assessment can be reviewed at City Hall.

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 change of having the described health effect.

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The data presented in this report are non-the most recent testing done in accordance with administrative regulations in 401 KAK Chapter 6. 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.

Regulated Contaminan			Whitesburg	Water	Plan	nt			
Contaminant			Report	oort Range		Date of	Violation	Likely Source of	
[code] (units)	MCL	MCLG	Level			Sample		Contamination	
Radioactive Contamina	ants								•
Combined radium	5	0	3.29	3.29	to	3.29	Jul-20	No	n
(pCi/L)									Erosion of natural deposits
Inorganic Contaminan	ts		•						•
Barium									
[1010] (ppm)	2	2	0.036	0.036	to	0.036	Apr-21	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride									Water additive which promotes
[1025] (ppm)	4	4	0.55	0.55	to	0.55	Apr-21	No	strong teeth
Nitrate									Fertilizer runoff; leaching from
[1040] (ppm)	10	10	0.57	0.57	to	0.57	Mar-21	No	septic tanks, sewage; erosion of natural deposits
Selenium									Discharge from petroleum and
[1045] (ppb)	50	50	1.5	1.5	to	1.5	Apr-21	No	metal refineries or mines; erosion of natural deposits
Disinfectants/Disinfecti	ion Bypro	ducts and Pr	ecursors	-			-		
Total Organic Carbon (ppm)			1.34						
(measured as ppm, but	TT*	N/A	(lowest	0.80	to	2.56	2021	No	Naturally present in environment.
reported as a ratio)			average)	(mo	onthly	y ratios)			
*Monthly ratio is the % TOC 1	removal achie	eved to the % TO	OC removal requi	red. Annua	al ave	erage must be	1.00 or greater	for complia	nce.
Chlorine	MRDL	MRDLG	1.45						Water additive used to control
(ppm)	= 4	= 4	(highest average)	0.78	to	1.97	2021	No	microbes.
HAA (ppb) (Stage 2)			25						Byproduct of drinking water
[Haloacetic acids]	60	N/A	(high site	9	to	41	2021	No	disinfection
			average)	(range o	f indi	ividual sites)			distriction
TTHM (ppb) (Stage 2)			58						Drumma divist of duindring avviction
[total trihalomethanes]	80	N/A	(high site	16	to	59	2021	No	Byproduct of drinking water disinfection.
			average)	(range o	f indi	ividual sites)			distilication.
<b>Household Plumbing C</b>	ontamina	nts							
Copper [1022] (ppm)	AL =		0.0172						Corrosion of household plumbing
sites exceeding action level	1.3	1.3	(90 <sup>th</sup>	0.001	to	0.0311	Aug-19	No	systems
0			percentile)						Systems
Lead [1030] (ppb)	AL=		0						Compagion of househald alva-1:
sites exceeding action level	15	0	(90 <sup>th</sup>	0	to	0	Aug-19		Corrosion of household plumbing systems
0	<u> </u>		percentile)				<u> </u>		by Stering
Other Constituents									-
Turbidity (NTU) TT				Highest Single		Lowest	Violation	Violation	
* Representative samples	Levels		Measurement			Monthly %		Likely Source of Turbidity	
Turbidity is a measure of the	No more than 1 NTU* Less than 0.3 NTU in		0.17			100	No	Soil runoff	
clarity of the water and not a									
ontaminant. 95% of monthly samples					-				
i , 4			Average Range of		Detection		•		
Sodium (EPA guidance level = 20 mg/L)			25.8	25.8	to	25.8	1		
ZVIIII (E171 Guidante level 20 llig/E)							ı		

Secondary contaminants do not have a direct impact on the health of consumers. 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
Aluminum	0.05 to 0.2 mg/l	0.24	0.24 to 0.24	Apr-21
Chloride	250 mg/l	11.1	11.1 to 11.1	Apr-21
Corrosivity	Noncorrosive	-0.985	-0.985 to -0.985	Apr-21
Fluoride	2.0 mg/l	0.54	0.54 to 0.54	Apr-21
Manganese	0.05 mg/l	0.028	0.028 to 0.028	Apr-21
Sulfate	250 mg/l	197	197 to 197	Apr-21
Total Dissolved Solids	500 mg/l	439	439 to 439	Apr-21