

Annual Drinking Water Quality Report 2018  
**LINCOLN PUBLIC SERVICE DISTRICT**

P. O. Box 38  
Alum Creek, WV 25003  
PWS# WV3302205

May 2, 2019

**Why am I receiving this report?**

In compliance with the Safe Drinking Water Act Amendments, the **Lincoln PSD** is providing its customers with this annual water quality report. This report explains where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The information in this report shows the results of our monitoring for the period of January 1st to December 31st, 2018 or earlier if not on a yearly schedule.

If you have any questions concerning this report, you may contact **Jason Abbott, Chief Operator, 304-756-2141**. If you have any further questions, comments or suggestions, please attend any of our regularly scheduled water board meetings held on the 4<sup>th</sup> **Thursday** of every month at 4:00 PM in the **Lincoln County PSD office, 240 Little Coal Road, Alum Creek, WV**.

**Where does my water come from?**

Your drinking water is surface water from the Coal River.

**Source Water Assessment**

A Source Water Assessment was conducted by the West Virginia Bureau for Public Health (WVBPH). The intake that supplies drinking water to the **Lincoln PSD** has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that this intake will become contaminated only that conditions are such that the surface water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report which contains more information is available for review or a copy will be provided to you at our office during business hours or from the WVBPH 304-558-2981.

**Why must water be treated?**

All drinking water contains various amounts and kinds of contaminants. Federal and state regulations establish limits, controls, and treatment practices to minimize these contaminants and to reduce any subsequent health effects.

**Contaminants in Water**

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits of contaminants in bottled water which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The source of drinking water (both tap and bottled water) includes rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-

occurring minerals, and, in some cases radioactive material, and can 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally-occurring, or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming.

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

**Radioactive contaminants**, which can be naturally-occurring or the result of oil and gas production and mining activities.

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 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).

#### Water Quality Data Table

Definitions of terms and abbreviations used in the table or report:

- **MCLG - Maximum Contaminant Level Goal**, or 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.
- **MCL - Maximum Contaminant Level**, or 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 technique.
- **MRDLG - Maximum Residual Disinfectant Level Goal**, or the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect benefits of use of disinfectants to control microbial contaminants.
- **MRDL - Maximum Residual Disinfectant Level**, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary to control microbial contaminants.
- **AL - Action Level**, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **TT - Treatment Technique**, or a required process intended to reduce the level of a contaminant in drinking water

Abbreviations that may be found in the table:

- **ppm** - parts per million or milligrams per liter
- **ppb** - parts per billion or micrograms per liter
- **NA** – not applicable
- **NE** - not established
- **NTU** –Nephelometric Turbidity Unit, used to measure cloudiness in water

The Lincoln PSD routinely monitors for contaminants in your drinking water according to federal and state laws. The tables below show the results of our monitoring for contaminants.

**Table of Test Results - Regulated Contaminants – Lincoln PSD**

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Turbidity	Y	0.19 100% of monthly samples <0.3	NTU	0	TT	Soil runoff
Total organic carbon*	Y	1.5	ppm	NA	TT	Naturally present in the environment
<b>Inorganic Contaminants</b>						
Barium	N	0.0487	ppm	2	2	Discharge from drilling wastes; erosion of natural deposits
Chromium	N	4.1	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper**	Y	0.06	pm	1.3	AL=1.3	Corrosion of household plumbing
Fluoride	N	0.36	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum plants
Lead**	Y	0.6	ppb	0	AL=15	Corrosion of household plumbing
Selenium	N	1.7	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits discharge from mines

Chlorine	N	1.4 Annual avg. Range 0.8-2.3	ppm	4 MRDLG	4 MRDL	Water additive used to control microbes
Haloacetic acids*** (HAACS) Site 1 Site 2  Site 1 Site 2	Y	Annual Avg. 13.7 16.0 Range 7.9-18.6 4.4-28.4	ppb	NA	60	By-product of drinking water disinfection
Total trihalomethanes*** (TTHMs) Site 1 Site 2  Site 1 Site 2	Y	Annual Avg. 15.4 14.8 Range 8.6-28.6 3.1-31.4	ppb	NA	80	By-product of drinking water chlorination

\*Total Organic Carbon results are missing September and October results.

\*\*Copper and lead samples were collected from 12 area residences on September 1/29, 2016. Only the 90<sup>th</sup> percentile is reported. None of the samples collected exceeded the MCL. Lead and Copper were not taken in 2018.

\*\*\*HAACS and TTHM results are only for 1<sup>st</sup>, 2<sup>nd</sup>, and 4<sup>th</sup> quarters.

#### Table of Test Results - Unregulated Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Nickel	N	3.9	ppm	100	100	Erosion of natural deposits
Sodium	N	142	ppm	NE	20	Erosion of natural deposits
Sulfate	N	211	ppm	250	250	Erosion of natural deposits

Sodium is an unregulated contaminant. Our sodium level exceeds the guidance MCL. Anyone having a concern over sodium should contact their primary health provider.

#### Violations

For the reporting year 2018 we received several "Notice of Violation" letters from the WV Bureau for Public Health for failure to take turbidity results or complete turbidity reports (6/1/2018 to 6/30/2018), (7/1/2018 to 7/31/2018), (8/1/2018 to 8/31/2018), and (9/1/2018 to 9/30/2018), and failure to take or report total Coliform (8/1/2018 to 8/31/2018) and (11/1/2018 to 11/30/2018), and failure to take or report lead and copper (1/1/2018 to 12/31/2018), and failure to take or report haloacetic acids (7/1/2018 to 9/30/2018), and failure to take or report total trihalomethanes (7/1/2018 to 9/30/2018), inadequate disinfection by product precursor removal (7/1/2018 to 9/30/2018), and failure to take or report cryptosporidium (8/1/2018 to 8/31/2018). We have taken every precaution and made every effort to return to compliance.

Chlorine can be solid, liquid, or a gas additive used for the control microbes in drinking water. Drinking water that has not been treated with chlorine or some other form of disinfectant or process may or may not contain harmful bacteria. Untreated drinking water may cause gastrointestinal distress or other health problems.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver and or kidney damage. People with Wilson's Disease should consult their personal doctor.

Annual Drinking Water Quality Report 2018  
**LINCOLN PUBLIC SERVICE DISTRICT ROUTE 3**  
39 Beechie Fork  
Alum Creek, WV 25003  
PWS# WV3302207  
May 2, 2019

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**Where does my water come from?**

Your drinking water is **purchased** from **WV American Water Company (Kanawha District)** which uses **surface** water from the Elk River.

**Source Water Assessment**

A Source Water Assessment was conducted by the West Virginia Bureau for Public Health (WVBPH). The intake that supplies drinking water to the **WV American Water Company** has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that this intake will become contaminated only that conditions are such that the surface water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report which contains more information is available for review or a copy will be provided to you at our office during business hours or from the WVBPH 304-558-2981.

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The WV American Water Company and Lincoln PSD Rt. 3 routinely monitor for contaminants in your drinking water according to federal and state laws. The tables below show the results of our monitoring for contaminants.

**Table of Test Results - Regulated Contaminants – WV American Water Company**

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Turbidity	N	0.08 100% of monthly samples <0.3	NTU	0	TT	Soil runoff
Total organic carbon	N	1.0	ppm	NA	TT	Naturally present in the environment
<b>Inorganic Contaminants</b>						
Barium	N	<0.1	ppm	2	2	Discharge from drilling wastes; discharge from metal refineries ; erosion of natural deposits
Chromium	N	<7	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper* (2018)	N	0.154	ppm	1.3	AL=1.3	Corrosion of household plumbing
Fluoride	N	0.7	ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum plants
Lead* (2018)	N	1	ppb	0	AL=15	Corrosion of household plumbing
Nitrate	N	0.33	ppm	10	10	Runoff from fertilizer use; leakage from septic tanks, sewage; erosion of natural deposits

Volatile Organic Contaminants						
Chlorine	N	2.4 Annual avg. Range 0.3-3.2	ppm	4 MRDLG	4 MRDL	Water additive used to control microbes
Haloacetic acids (HAAC5)	N	20 Annual avg. Range 6-71	ppb	NA	60	By-product of drinking water disinfection
Total trihalomethanes (TTHMs)	N	37 Annual avg. Range 10-130	ppb	NA	80	By-product of drinking water chlorination

Copper and lead samples were collected from 50 area residences on August 12 – September 2, 2018. Only the 90<sup>th</sup> percentile is reported. None of the samples collected exceeded the MCL.

#### Table of Test Results - Unregulated Contaminants

Contaminant	Violation Y/N	Level Detected	Unit of Measure	MCLG	MCL	Likely Source of Contamination
Aluminum	N	20	ppm	NE	200	Erosion of natural deposits
Iron	N	<100	ppm	NE	300	Erosion of natural deposits
Manganese	N	<10	ppm	NE	50	Erosion of natural deposits
Nickel	N	<5	ppb	100	100	Erosion of natural deposits
Zinc	N	0.09	ppm	NE	5	Erosion of natural deposits
Sodium	N	5.9	ppm	NE	20	Erosion of natural deposits
Sulfate	N	24	ppm	250	250	Erosion of natural deposits

WV American Water Company conducted additional testing under the Unregulated Contaminant Monitoring Rule (UCMR3). Test results are available from the WV American Water company 1-800-685-8660

#### Table of Test Results - Regulated Contaminants – Lincoln PSD Rt. 3

Volatile Organic Contaminants						
Chlorine	N	1.3 Annual avg. Range 0.4-2.4	ppm	4 MRDLG	4 MRDL	Water additive used to control microbes

Haloacetic acids (HAAC5)	N	35.3 Annual avg. Range 276.2- 52.5	ppb	NA	60	By-product of drinking water disinfection
Total trihalomethanes (TTHMs)	N	52.7 Annual avg. Range 22.6-105	ppb	NA	80	By-product of drinking water chlorination

For the reporting year 2018 we received "Notice of Violation" letters from the WV Bureau for Public Health for failure to monitor or report total coliforms (7/1/2018 to 7/31/2018), (8/1/2018 to 8/31/2018) and (11/1/2018 to 11/30/2018), and failure to monitor or report haloacetic acids (7/1/2018 to 9/30/2018), and failure to monitor or report total trihalomethanes (7/1/2018 to 9/30/2018). We have made every effort and taken every precaution to return to compliance.

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or nervous system, and may have an increased risk of getting cancer.

Chlorine can be solid, liquid, or a gas additive used for the control microbes in drinking water. Drinking water that has not been treated with chlorine or some other form of disinfectant or process may or may not contain harmful bacteria. Untreated drinking water may cause gastrointestinal distress or other health problems.

#### Additional Information

All other water test results for the reporting year 2015 were all non-detects.

Turbidity is a measure of the cloudiness in water. We monitor it because it is a good indicator of the effectiveness of our filters.

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. The **Lincoln PSD Rt. 3** 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 drinking 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>.

This report will not be mailed. A copy will be provided to you upon request at our office during regular business hours.