



CONSUMER CONFIDENCE REPORT (CCR)

2019 Water Quality Report for the Franklin-Clearcreek Water System PWSID# 8301603

The Warren County Water Department has prepared the following information for the Franklin-Clearcreek Water System. Included in this report is general health information, water quality test results, how to participate in decision concerning your drinking water and water system contacts. This annual water quality report describes the water source, lists test results, and contains important information about drinking water from the previous year. Reporting is a requirement of the Safe Drinking Water Act of 1996. We encourage public participation in our community's future. The Warren County Board of Commissioners meeting is held on Tuesday at 10:00 A.M. and on Thursday at 5:00 P.M. The public is welcome.

Water Source

The well field is located in northwest Warren County. It is bordered by Trenton-Franklin Road on the north, Twin Creek on the west, the Great Miami River on the south, and the Conrail tracks on the east. This is an area of the confluence of the Twin Creek and Great Miami Buried Valley Aquifers. The water quality is exceptional and does not require treatment other than the addition of fluoride and chlorine. The Aquifer that supplies the Franklin-Clearcreek wellfield has been determined to have a high susceptibility to contamination due to the presence if significant potential contaminate sources in the protection are. However, there is no evidence to suggest that ground water has been impacted by significant levels of chemical contaminants from human activities. . Should you need to find your Source Water Assessment Information, the report can be accessed at Ohio EPA's website by typing into the following link, http://wwwapp.epa.ohio.gov/gis/swpa/OH8301603.

The Franklin-Clearcreek Water System also has interconnection for emergency backup purposes. These connections are as follows: 4151 Lytle Road (Waynesville, Ohio) with Waynesville Water. 3050 State Route 73 (Waynesville, Ohio) with Waynesville Water. 8656 Bunnel Hill Road (Springboro, Ohio) with Springboro/Veolia Water. 15 Lytle Five Points Road (Springboro, Ohio) with Springboro/Veolia Water. 346 Lytle Road Springboro Tower (Springboro, Ohio) Springboro/Veolia Water. 3763 Beal Road (Franklin, Ohio) Franklin Water. 6010 State Route 123 (Franklin, Ohio) Franklin Water, 7068 Dixie Hwy (Franklin, Ohio) Franklin Water, 6562 Manchester Road (Middletown, Ohio) Middletown Water, 2467 State Route 48 (Lebanon, Ohio) Lebanon Water, Hamilton-Mason Road & Butler-Warren Road (Mason, Ohio) Butler County and Cincinnati Water, and 17562 State Route 48 (South Lebanon, Ohio) Warren County Water.

<u>Sources of Drinking Water Contamination</u>
The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, pond, 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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or results from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses;
- D) 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;
- E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulation which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for 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 contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons 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 Cryptospiridium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

About your Drinking Water

The EPA requires sampling to ensure drinking water safety. The Franklin-Clearcreek Water System conducted sampling for (Bacteria, Nitrate/Nitrite, Inorganics, VOC's, Barium, Cynaide, (Total), Radiologicals, Synthetic Organic Chemicals (SOC Group 2), and Disinfection by-Products during 2019. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

License

The Franklin-Clearcreek Water System currently has an unconditioned license to operate.

Contact

For further information about water quality, contact the Warren County Water and Sewer Department (WCWSD).

Hours of operation are 7:30 AM and 4:00 PM, Monday through Friday:

Main Office (513) 695-1377

Superintendent of Operations (513) 683-3687 FAX (513) 697-1752

WEB SITE: http://www.co.warren.oh.us/

Send correspondence to: Warren County Water and Sewer, PO Box 530, Lebanon, OH 45036-0530

Explanation of the Water Quality Data Tables

This report is based upon tests conducted by the Warren County Water Laboratory and its' contract laboratory. Terms used in the Water Quality Tables and in other parts of this report are defined here.

Maximum Contaminant Level or 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 or 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 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.

(MRL): Minimum Reporting Limit

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (\mug/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years. **ppb**: parts per billion The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Picocuries per liter (pCi/L): A common measure of radioactivity.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Compliance Monitoring and Disinfection Requirements 2019

Substance	Highest Level Detected	Range of Detection	MCL	MCLG	Violation	Sample Year	Sources of Substances
Fluoride (mg/L)	1.13	0.8 - 1.3	4	4	No	2019	Water additive which promotes strong teeth;
Chlorine (mg/L)	1.9	0.2 - 2.0	MRDL= 4.0	MRDLG= 4.0	No	2019	Element used for disinfection

Total Coliform samples were collected and analyzed in 2019. 360 samples collected and all samples were total coliform negative and E. coli negative.

Franklin-Clearcreek Water System Monitored Analytes Sampled in 2019

Substance	Highest Level Detected	Range of Detection	MCL	MCLG	Violation	Sample Year	Sources of Substances
Barium	0.0826 mg/l	0.0826- 0.0826 mg/l	2	2	No	2019	Discharge of drilling waste, metal refineries, erosion of natural deposits
Cyanide, Total	<0.010 mg/l	<0.010- 0.010 mg/l	0.2	0.2	No	2019	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Nitrate Nitrite	1.7 mg/l	1.7 – 1.7 mg/l	10	10	No	2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Inorganics (Be, Cr, Ni, As, Cd, Sb, Se, TI, Hg an all tested below detection level)

VOC 524.2. (Below Detection Limits)

 $\underline{SOC\ GROUP\ 2}$ (2,4-D, CARBOFURAN, OXAMYL (VYDATE), PENTACHLOROPHENOL PICLORAM ($\underline{\bf NONE\ DETECTED})$

RADIUM – 226 ADIUM – 228 1 pCi/L RADIUM – 228 1 pCi/L

From October 2018 to April 2019, the Warren County Franklin-Clearcreek Water System collected samples for UCMR 4 (Unregulated Contaminent Monitoring Rule). Assessment Monitoring for Metals, Pesticides, Alcohols, and SVOC's. Assessment Monitoring for HAAs also took place during these sampling events. The table below shows only the Analytes that had reportable values. If Analyte is not listed it is considered to have a result below detectable limits. A list of results for this testing is available upon request.

Substance	Detected	Range	MCL	MCLG	Violation	Sample Year	Sources
Total HAA5	9.85 ug/l	4.97 – 9.85 ug/l	60	n/a	No	Oct. 2018- Apr. 2019	By-product of drinking water chlorination
Total HAA6	8.90 ug/l	5.44 – 8.90 ug/l	60	n/a	No	Oct. 2018- Apr. 2019	By-product of drinking water chlorination
Total HAA9	17.7 ug/l	9.42 – 17.7 ug/l	60	n/a	No	Oct. 2018- Apr. 2019	By-product of drinking water chlorination

The table list drinking water contaminants that were tested for in the Franklin-Clearcreek Water

System. 2019. Collected by Warren County Staff

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Substance	Highest Level Detected	Range of Detection	MCL	MCLG	Violation	Sample Year	Sources of Substances	
Total Trihalomethanes	28.0 ug/L	25.3-28.0 ug/L	80	n/a	No	2019	By-products of drinking water chlorination.	
Bromodichloromethane	8.0 ug/l	8.0-8.0 ug/l	80	n/a	No	2019	By-products of drinking water chlorination.	
Bromoform	2.3 ug/l	0.77-2.3 ug/l	80	n/a	No	2019	By-products of drinking water chlorination.	
Chloroform	14.4	8.3-14.4 ug/l	80	n/a	No	2019	By-products of drinking water chlorination.	
Dibromochloromethane	6.8 ug/l	4.8 – 6.8 ug/l	80	n/a	No	2019	By-products of drinking water chlorination.	
HAA5 Haloacetic acids	6.9 ug/l	3.5 – 6.9 ug/l	60	n/a	No	2019	By-products of drinking water chlorination.	
Dibromoacetic acid	1.8 ug/l	1.1 – 1.8 ug/l	60	n/a	No	2019	By-products of drinking water Chlorination.	
Dichloroacetic acid	3.3 ug/l	1.7 – 3.3 ug/l	60	n/a	No	2019	By-products of drinking water Chlorination.	
Monobromoacetic acid	<1.0	<1.0 - <1.0 ug/l	60	n/a	No	2019	By-products of drinking water Chlorination.	
Monochloroacetic acid	<2.0	<2.0 - <2.0 ug/l	60	n/a	No	2019	By-products of drinking water Chlorination	
Trichloroacetic acid	2.5 ug/l	<1.0 – 2.5 ug/l	60	n/a	No	2019	By-products of drinking water Chlorination	

Action Levels (AL) control Copper and Lead. Samples are collected and ranked by how much lead or copper they contain. If the 90th percentile exceeds the Action Level, specific corrective actions are required. **Thirty samples were taken in 2017**.

Substance	Detected	Range	MCL	MCLG	Violation	Sample Year	Sources	Samples Greater Than Action Level
Copper	.258 mg/L 90 th percentile	.017 to .627 mg/L	AL = 1.3 mg/L	1.3 mg/L	No	2017	Piping used in distribution system,house hold plumbing	0
Lead	8.018ppb 90 th percentile	<2.0 to 26.00 ppb	AL = 15 ppb	0 ppb	No	2017	Piping used in distribution system,house hold plumbing	1

"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 Franklin-Clearcreek 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. For more information on lead in drinking water, testing methods, and steps you can take to minimize exposure: Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead, and Ohio EPA: Learn About Lead: http://epa.ohio.gov/pic/lead.aspx."

CONSUMER CONFIDENCE REPORT (CCR) 2019 Water Quality Report for the Massie-Wayne Water System

PWSID# 8345912

The Warren County Water Department has prepared the following information for the Massie-Wayne Water System. Included in this report is general health information, water quality test results, how to participate in decision concerning your drinking water and water system contacts. This annual water quality report describes the water source, lists test results, and contains important information about drinking water from the previous year. Reporting is a requirement of the Safe Drinking Water Act of 1996. We encourage public participation in our community's future. The Warren County Board of Commissioners meeting is held on Tuesday at 10:00 A.M. and on Thursday at 5:00 P.M. The public is welcome.

Water Source

Warren County purchases its water for the Massie-Wayne Water System from the Village of Waynesville. The water source is known as the Little Miami Buried Valley Aquifer. Water is supplied from four wells located in the Waynesville Water wellfield at 7198 North US Route 42. This location is approximately one-half mile north on State Route 42 from the intersection of State Route 73 and US Route 42. The aquifer that supplies the wellfield has been determined to have high susceptibility to contamination due to the presence of significant potential contaminant sources in the protection area. However, there is no evidence to suggest that ground water has been impacted by significant levels of chemical contaminants from human activities. Should you need to find your Source Water Assessment Information, the report can be accessed at Ohio EPA's website by typing into the following link, http://wwwapp.epa.ohio.gov/gis/swpa/OH8345912.

The Massie-Wayne Water system also has an interconnection for emergency / back-up. This connection is with the Western Water Company and is located at Brimstone and State Route 73 (Harveysburg, Ohio). During the year, the Massie-Wayne Water System draw water from the Western Water Company. The usage is roughly 1 million gallons over 365 days. The Western Water Company quality report can be found on the website at www.western-h2o.com or by calling (513)722-1682.

Sources of Drinking Water Contamination

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, pond, 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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
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- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses;
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About your Drinking Water

The EPA requires sampling to ensure drinking water safety. The Massie –Wayne Water System conducted sampling for (Bacteria, Lead, Copper, and Disinfection by-Products) during 2019. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

License

The Massie Wayne Water System currently operates with an unconditioned license to operate.

Whom to Contact

For further information about water quality, contact the Warren County Water and Sewer Department (WCWSD).

Hours of operation are 8:00 AM and 5:00 PM, Monday through Friday:

Main Office (513) 695-1377

Superintendent of Operations (513) 683-3687 FAX (513) 697-1752

WEB SITE: http://www.co.warren.oh.us/

Send correspondence to: Warren County Water and Sewer, PO Box 530, Lebanon, OH 45036-0530

Explanation of the Water Quality Data Tables

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(MRL): Minimum Reporting Limit

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

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Picocuries per liter (pCi/L): A common measure of radioactivity.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Water Supply changes in 2019

2019 Brought a few changes to the Massie-Wayne Water system. On April 2, 2019, the Warren County Water Department began supplying water to the Massie-Wayne system from the Franklin-Clearcreek Water system. This process discontinued water being supplied by the village of Waynesville.

After 6 months of operation using a new water source, the Warren County Water department and the Ohio EPA discontinued the Massie-Wayne Water System. The area that was once Massie-Wayne is now called Franklin-Clearcreek. Attached to this report is a copy of the Franklin-Clearcreek Water system report for 2019.

*Collected by the Village of Waynesville

** Samples collected by the Warren County Water Department

Compliance Monitoring for 2019

			8				
Substance	Violation	Highest Level Detected	Range	MCL	MCLG	Sample Year	Sources of Substances
**Chlorine	No	1.9 mg/l	0.2 - 2.0	MRDL=	MRDLG=	2019	Element used for disinfection
*Nitrogen, Nitrate+Nitrite	No	2.18 mg/l	n/a	10.0	10.0	2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
*Barium	No	0.0798 mg/l	n/a	2	2	2019	Discharge of Drilling wastes; Discharge from metal refineries; Erosion of natural deposits

The Warren County Water Laboratory collected 24 microbiological samples for Total Coliform and E.coli. All 24 samples tested negative for both Total Coliform and E.coli.

The table below lists all the drinking water contaminants that were detected between January 1 and December 31, 2019 (unless otherwise noted). The presence of the contaminants in the water does not

necessarily indicate that the water poses a health risk.

Substance	MCL	MCLG	Highest level Detected	Range of Detection	Violation	Sample Year	Source of Substance
**Total Trihalomethane	80	na	29.7ug/l	29.7-29.3 ug/l	no	2019	By-product of drinking water Chlorination
Bromodichloromethane	80	na	8.1 ug/l	8.1 – 8.1 ug/l	no	2019	By-product of drinking water Chlorination
Bromoform	80	na	1.0 ug/l	1.0-1.0 ug/l	no	2019	By-product of drinking water Chlorination
Chloroform	80	na	15.6 ug/l	15.1-15.6 ug/l	no	2019	By-product of drinking water Chlorination
Dibromochloromethane	80	na	5.0 ug/l	5.0-5.0 ug/l	no	2019	By-products of drinking water Chlorination.
**HAA5 (Haloacetic acid)	60	na	7.7 ug/l	7.3 – 7.7 ug/l	no	2019	By-products of drinking water Chlorination.
Dibromoacetic acid	60	na	1.3 ug/l	1.3-1.3 ug/l	no	2019	By-products of drinking water Chlorination.
Dichloroacetic acid	60	na	4.3 ug/l	4.2- 4.3 ug/l	no	2019	By-products of drinking water Chlorination.
Monobromoacetic acid	60	na	<1.0 ug/l	<1.0- <1.0 ug/l	no	2019	By-products of drinking water Chlorination.
Monochloroacetic acid	60	na	<2.0 ug/l	<2.0- <2.0 ug/l	no	2019	By-products of drinking water Chlorination.
Trichloroacetic acid	60	na	2.1 ug/l	1.8 -2.1 ug/l	no	2019	By-products of drinking water Clorination

Action Levels (AL) control copper and lead. Samples are collected and ranked by how much lead or copper they contain. The 90th percentile of each ranking is determined. If the 90th percentile exceeds the Action Level, specific corrective actions are required. None of our 90th percentiles exceeded the Action Levels. **Samples collected in 2019.**

Tables below are samples collected after the water supply was from Franklin-Clearcreek Water system

Table represents samples collected from March 2019 to June 2019

Substance	Detected	Range	MCL	MCLG	Violation	Sources	Sample Year	Number of Samples Greater Than Action Level
Copper 1 st set	0.172 mg/L 90th Percentile	.022 - .590mg/L	1.3 mg/L	1.3 mg/L	No	Corrosion of household plumbing	2019	0
Lead 1 st set	.96 ug/l 90th Percentile	< 0.5- 10.8 ug/l	15 ug/l	0	No	Corrosion of household plumbing	2019	0

Table represents samples collected from July 2019 to September 2019

Substance	Detected	Range	MCL	MCLG	Violation	Sources	Sample Year	Number of Samples Greater Than Action Level
Copper 2 nd set	.089mg/L 90th Percentile	.018- .507mg/L	1.3 mg/L	1.3 mg/L	No	Corrosion of household plumbing	2019	0
Lead 2 nd set	2.94 ug/l 90th Percentile	< 0.5- 2.4 ug/l	15 ug/l	0	No	Corrosion of household plumbing	2019	0

"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 Massie-Wayne 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. For more information on lead in drinking water, testing methods, and steps you can take to minimize exposure: Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead, and Ohio EPA: Learn About Lead: http://epa.ohio.gov/pic/lead.aspx."

CONSUMER CONFIDENCE REPORT (CCR)

2019 Water Quality Report for Pennyroyal Water System PWSID# 8301803

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Water Source

Warren County purchases the water for the Pennyroyal Water System from the City of Springboro (Veolia Water). The City of Springboro obtains its drinking water supply from the buried sand and gravel aquifers associated with the Great Miami River. The City of Springboro has five (5) wells to draw water from the aquifer. The wells are located on the west side of the Great Miami River near 8858 Dayton-Oxford Road. The Water Treatment Plant and well field is south of Chautauqua and borders the Village of Carlisle. Well water is pumped directly to the water treatment plant, where the water is filtered and treated with chlorine and fluoride.

The Pennyroyal Water system is also equipped with an interconnection for emergency purposes. This connection is between Warren County and Montgomery County on Staley Road. The Montgomery County Water report can be found at www.mcohio.org or call (937)781-2500.

The Ohio EPA assessment of the water source that supplies the City of Springboro has a high susceptibility to contamination. Should you need to find your source water assessment information, the report can accessed at the Ohio EPA's website by typing into the following link, http://www.app.epa.ohio.gov/gis/swpa/OH8301803

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Who needs to take special precautions?

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Whom to Contact

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Hours of operation are 7:30 AM and 4:00 PM, Monday through Friday:

Main Office (513)695-1377

Superintendent of Operations (513)683-3687 **FAX** (513)697-1752

WEB SITE: http://www.co.warren.oh.us/

Send correspondence to: Warren County Water and Sewer, PO Box 530, Lebanon, OH 45036-0530

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This report is based upon tests conducted by the City of Springboro and Warren County's Water Laboratory. Terms used in the Water Quality Tables and in other parts of this report are defined here.

Maximum Contaminant Level or 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 or 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 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.

(MRL): Minimum Reporting Limit

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (\mug/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years. **ppb**: parts per billion The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Picocuries per liter (pCi/L): A common measure of radioactivity.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Compliance Monitoring 2019

Substance	Violation	Level Detected	Range of Detection	MCL	MCLG	Sample Year	Source of Substance
**Fluoride	No	1.16 mg/l	0.81 - 1.16 mg/l	4	4	2019	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
**Nitrate	No	.504 mg/l	.504 mg/l	10	10	2019	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
**Barium	No	.202 mg/l	.202 mg/l	2	2	2019	Discharges from drilling waste
*Chlorine Residual	No	1.8 mg/l	0.2 - 2.0 mg/l	MRDL= 4.0	MRDLG= 4.0	2019	Element used for disinfection

Total Coliform samples were collected and analyzed in 2019. 24 samples collected and all samples were total coliform negative and E. coli negative.

^{**} Collected by the Springboro Water Department. (Veolia Water)

^{*}Collected by the Warren County Water Department

The table below lists all the drinking water contaminants that were detected between January 1 and December 31, 2019. The presence of the contaminants in the water does not necessarily indicate that the water poses a health risk.

Pennyroyal- Required Monitoring information - 2019

Substance	Violation	Highest Level Detected	Range of Detection	MCL	MCLG	Sample Year	Sources of Substances
*Total Trihalomethane	No	22.7 ug/l	17.8 - 22.7ug/l	80	0	2019	By product of drinking water Chlorination
Bromodichloromethane	No	6.5ug/l	5.0 - 6.5ug/l	80	0	2019	By product of drinking water Chlorination
Bromoform	No	2.1ug/l	2.0- 2.1ug/l	80	0	2019	By product of drinking water Chlorination
Chloroform	No	7.9ug/l	5.2 – 7.9ug/l	80	0	2019	By product of drinking water Chlorination
Dibromochloromethane	No	6.1ug/l	5.7- 6.1ug/l	80	0	2019	By product of drinking water Chlorination
*HAA5 (Total Haloacetic Acids)	No	3.5 ug/l	2.8 – 3.5 ug/l	60	0	2019	By-products of drinking water Chlorination.
Bromochloroacetic Acid	No	1.5 ug/l	1.4 - 1.5 ug/l	60	0	2019	By-products of drinking water Chlorination.
Dibchloroacetic Acid	No	1.6 ug/l	1.6 – 1.6 ug/l	60	0	2019	By-products of drinking water Chlorination.
Dibromoacetic Acid	No	1.9 ug/l	1.2- 1.9 ug/l	60	0	2019	By-products of drinking water Chlorination.
Monobromoacetic Acid	No	<1.0	<1.0	60	0	2019	By-products of drinking water Chlorination.
Monochloroacetic Acid	No	<2.0	<2.0	60	0	2019	By-products of drinking water Chlorination.
Tricholoracetic Acid	No	<1.0	<1.0	60	0	2019	By-products of drinking water Chlorination.

Action Levels (AL) control Copper and Lead. Samples are collected and ranked by how much lead or copper they contain. The 90th percentile of each ranking is determined. If the 90th percentile exceeds the Action Level, specific corrective actions are required. None of our 90th percentiles exceeded the Action Levels. **The Warren County Water Laboratory collected ten samples in 2017.**

Substance	Detected	Range of Detection	MCL	MCLG	Sample Year	Sources	Number of Samples Greater Than Action Level
Copper	176 ppb 90 th percentile	28.7 to 194 ppb	AL = 1300 ppb	1300 ppb	2017	Piping used in distribution system and house hold plumbing	0
Lead	5.59 ppb 90 th percentile	<2.0-12.2 ppb	AL = 15 ppb	0.0 ppb	2017	Piping used in distribution system and house hold plumbing	0

"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 Pennyroyal 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. For more information on lead in drinking water, testing methods, and steps you can take to minimize exposure: Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead, and Ohio EPA: Learn About Lead: http://epa.ohio.gov/pic/lead.aspx."

CONSUMER CONFIDENCE REPORT (CCR)

2019 Water Quality Report for the Richard Renneker Water System PWSID# 8301512

The Warren County Water Department has prepared the following information for the Richard Renneker Water System. Included in this report is general health information, water quality test results, how to participate in decision concerning your drinking water and water system contacts. This annual water quality report describes the water source, lists test results, and contains important information about drinking water from the previous year. Reporting is a requirement of the Safe Drinking Water Act of 1996. We encourage public participation in our community's future. The Warren County Board of Commissioners meeting is held on Tuesday at 10:00 A.M. and on Thursday at 5:00 P.M. The public is welcome.

Water Source

The Richard Renneker Water Treatment Plant withdraws water from three separate well fields. One well field is located on the east side of the Little Miami River, about one-half mile southwest of the Powder Plant and two miles north of Foster, Ohio. The nine wells draw water from the Little Miami River Buried Valley Aquifer. The second well field, having five wells, is located southeast of the intersection of Ohio Route 48 and Mason-Morrow-Milgrove Road. The other is across the Little Miami River (South). Both of these well fields are in South Lebanon. The well field is bounded on the north and east sides by Turtle Creek, on the south by the Little Miami River, and on the west by Ohio Route 48. This is the origin of the Shaker Creek Buried Valley Aquifer and the confluence of the Little Miami River Buried Valley Aquifer. The treatment process consists of iron and manganese removal by aeration, filtration, and the addition of fluoride and chlorine. The Aquifer that supplies the Richard Renneker wellfields have been determined to have a high susceptibility to contamination due to the presence if significant potential contaminate sources in the protection are. However, there is no evidence to suggest that ground water has been impacted by significant levels of chemical contaminants from human activities. Should you need to find your Source Water Assessment Information, the be Ohio EPA's website by into accessed at typing http://wwwapp.epa.ohio.gov/gis/swpa/OH8301512.

The Richard Renneker Water System also has interconnections for emergency backup purposes. These connections are as follows: 17562 State Route 48 South Lebanon, Ohio with Warren County and the other is at 3812 Socialville-Foster Road Mason, Ohio with Cincinnati Water Works. During the year, the Richard Rennker System draws water from the Franklin-Clearcreek Water System. Water is used each day during 2019. On average 105,000,000 gallons were used. The Franklin-Clearcreek water quality report can be found on the website (www.co.warren.oh.us) or by calling the main office of the Warren County Water Department.

Sources of Drinking Water Contamination

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, pond, 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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or results from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses;
- D) 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;
- E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulation which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for 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 contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons 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 Cryptospiridium and other microbial contaminants are available from the **Safe Drinking Water Hotline (800-426-4791)**.

About your Drinking Water

The EPA requires sampling to ensure drinking water safety. The Richard Renneker Water System conducted sampling for (Bacteria, Inorganics, Radiologicals, Volatile Organic Chemicals (VOC's) copper, lead, and Disinfection by-Products) during 2019. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

License

The Richard Renneker Water System currently has an unconditioned license to operate.

Whom to Contact

For further information about water quality, contact the Warren County Water and Sewer Department, Hours of operation are 8:00 AM and 5:00 PM, Monday through Friday.

Main Office (513)695-1377

Superintendent of Operations (513) 683-3687 **FAX (513) 697-1752**

WEB SITE: http://www.co.warren.oh.us/

Send correspondence to: Warren County Water and Sewer, PO Box 530, Lebanon, OH 45036-0530

An Explanation of the Water Quality Data Tables

This report is based upon tests conducted by the Warren County Water Laboratory and its contract laboratory. Terms used in the Water Quality Tables and in other parts of this report are defined here:

Maximum Contaminant Level or MCL: 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 Contaminant Level Goal or 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 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.

(MRL): Minimum Reporting Limit

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (μg/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years. ppb: parts per billion

The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Picocuries per liter (pCi/L): A common measure of radioactivity.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Compliance Monitoring and Disinfection Requirements 2019

Substance	Sample Year	Highest Level Detected	Range	Violation	MCL	MCLG	Sources of Substances
Fluoride (mg/L)	2019	1.10	0.8 -1.30	No	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Chlorine (mg/L)	2019	1.6	0.2 - 2.0	No	MRDL=	MRDLG=	Element used for disinfection

Total Coliform samples were collected and analyzed in 2019. 480 samples collected and all samples were total coliform negative and E. coli negative.

Action Levels (AL) control Copper and Lead. Samples are collected and ranked by how much lead or copper they contain. The 90th percentile of each ranking is determined, and if it exceeds the Action Level, specific corrective actions are

required. Thirty samples were collected in 2019.

Substance	Sample Year	Detected	Range	MCL	MCLG	Violation	Number of Samples Greater Than Action Level	Sources
Copper	2019	0.346 ppm 90 th percentile	0 to .808 ppm	AL = 1.3 ppm	1.3 ppm	No	0	Piping used in distribution system and house hold plumbing
Lead	2019	7.28 ppb 90 th percentile	0 to 12.1ppb	AL = 15 ppb	0	No	0	Piping used in distribution system and house hold plumbing

"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 Richard Renneker 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. For more information on lead in drinking water, testing methods, and steps you can take to minimize exposure: Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead, and Ohio EPA: Learn About Lead: http://epa.ohio.gov/pic/lead.aspx."

Richard Renneker Water System Monitored Analytes Sampled in 2019

Substance	Sample Year	Highest Level Detected	Range	Violation	MCL	Ideal Goals (MCLG)	Sources of Substances
Nitrogen, Nitrate- Nitrtite	2019	.88mg/l	.8888mg/l	No	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Cyanide, Total	2019	<0.010 mg/l	<0.010- <0.010mg/l	No	.2	.2	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Barium	2019	0.0981ppm	98.1 – 98.1 ppm	No	2	2	Discharge of drilling waste, metal refineries, erosion of natural deposits

<u>Inorganics:</u> (Be,Cr,Ni,Sb,As,Cd,Se,TI, Hg all tested below detection levels)

VOC 524.2: Below Detected Limits with the following exceptions:

Bromochloromethane 1.4 ug/l

Bromoform 1.3 ug/l

Chloroform 0.75 ug/l

Dibromochloromethane 2.0 ug/l

RADIUM-228 3 pCi/L RADIUM-228 1 pCi/L

The tables below list the drinking water contaminants detected between January 1 and December 31, 2019. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk Richard Renneker Water System monitoring requirement results 2019

Substance	Highest Level Detected	Range Of Detection	Violation	MCL	MCLG	Sample Year	Sources of Substances
Total Trihalo- methanes	25.9 ug/l	16.4 – 25.9 ug/l	No	80	n/a	2019	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Bromodichloromethane	8.0 ug/l	4.8 – 8.0 ug/l	No	80	n/a	2019	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Bromoform	3.1 ug/l	2.4 – 3.1 ug/l	No	80	n/a	2019	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Chloroform	5.9 ug/l	3.1 – 5.9 ug/l	No	80	n/a	2019	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Dibromochloromethane	8.8 ug/l	6.2 – 8.8 ug/l	No	80	n/a	2019	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Total HAA5 Haloacetic Acid	3.7 ug/l	1.8 – 3.7 ug/l	No	60	n/a	2019	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Dibromoacetic acid	2.3 ug/l	1.8 – 2.3 ug/l	No	60	n/a	2019	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Dichloroacetic acid	1.4 ug/l	<1.0 – 1.4 ug/l	No	60	n/a	2019	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Monobromoacetic acid	<1.0 ug/l	<1.0-<1.0 ug/l	No	60	n/a	2019	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Monochloroacetic acid	<2.0 ug/l	<2.0 - <2.0 ug/l	No	60	n/a	2019	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Trichloroacetic acid	<1.0 ug/l	<1.0 - <1.0 ug/l	No	60	n/a	2019	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter

August 2019, the Warren County Richard Renneker Water system collected samples for UCMR 4 (Unregulated Contaminent Monitoring Rule). Assessment Monitoring for Metals, Pesticides, Alcohols, and SVOC's. Assessment Monitoring for HAAs also took place during these sampling events. The table below shows only the Analytes that had reportable values. If the Analyte is not listed it is considered to have a result below detectable limits. A list of results for this testing is available upon request.

Substance	Detected	Range	MCL	MCLG	Sample Year	Violation	Sources
Total HAA5	9.35ug/l	7.55 – 9.35 ug/l	60	n/a	2019	No	By-product of drinking water
Total HAA6	7.39 ug/l	6.94 – 7.39 ug/l	60	n/a	2019	No	By-product of drinking water chlorination
Total HAA9	15 ug/l	12.9 – 15.0 ug/l	60	n/a	2019	No	By-product of drinking water chlorination

The following are analytes tested with a reportable value collected in August 2019

Manganese: 0.444 ug/l Bromide: 58.8 ug/l

CONSUMER CONFIDENCE REPORT (CCR)

2019 Water Quality Report for Sharts Road System PWSID# 8346912

The Warren County Water Department has prepared the following information for the Sharts Road Water System. Included in this report is general health information, water quality test results, how to participate in decision concerning your drinking water and water system contacts. This annual water quality report describes the water source, lists test results, and contains important information about drinking water from the previous year. Reporting is a requirement of the Safe Drinking Water Act of 1996. We encourage public participation in our community's future. The Warren County Board of Commissioners meeting is held on Tuesday at 10:00 A.M. and on Thursday at 5:00 P.M. The public is welcome.

Water Source

Warren County purchases its water for the Sharts Road area from the City of Springboro (Veolia Water). The City of Springboro obtains its public drinking water supply from the buried sand and gravel aquifers associated with the Great Miami River. The City of Springboro has five (5) wells to draw water from the aquifer. The wells are located on the west side of the Great Miami River at 8858 Dayton-Oxford Road. The Water Treatment Plant and well field is south of Chautauqua and borders the Village of Carlisle. Well water is pumped directly to the water treatment plant, where the water is filtered and treated with chlorine and fluoride.

The Ohio EPA assessment of the water source that supplies the City of Springboro has a high susceptibility to contamination. Should you need to find your source water assessment information, the report can accessed at the Ohio EPA's website by typing into the following link, http://www.app.epa.ohio.gov/gis/swpa/OH8301803

Sources of Drinking Water Contamination

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, pond, 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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or results from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses;
- D) 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;
- E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulation which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for 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 contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons 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 Cryptospiridium and other microbial contaminants are available from the **Safe Drinking Water Hotline** (800-426-4791).

About your Drinking Water

The EPA requires sampling to ensure drinking water safety. The Sharts Road Water System conducted sampling for (Bacteria, chlorine and Disinfection by-Products) during 2019. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

License

The Sharts Road System currently has an unconditioned license to operate.

Whom to Contact

For further information about water quality, contact the Warren County Water and Sewer Department. Hours of operation are 7:30 AM and 4:30 PM, Monday through Friday:

Main Office (513)695-1377

Superintendent of Operations (513)683-3687 **FAX** (513)697-1752

WEB SITE: http://www.co.warren.oh.us/

Send correspondence to: Warren County Water and Sewer, PO Box 530, Lebanon, OH 45036-

0530

An Explanation of the Water Quality Data Tables

This report is based upon tests conducted by the City of Springboro and Warren County's Water Laboratory. Terms used in the Water Quality Tables and in other parts of this report are defined here. **Maximum Contaminant Level or 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 or 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.

Compliance Monitoring 2019

	Compliance Womtoning 2019											
Substance	Violation	Level Detected	Range of Detection	MCL	MCLG	Sample Year	Source of Substance					
**Fluoride	No	1.16 mg/l	0.81 - 1.16 mg/l	4	4	2019	Erosion of natural deposits; water additive that promotes strong teeth;					
**Nitrate	No	.504 mg/l	.504 mg/l	10	10	2019	Runoff from fertilizer use; leaching from septic tanks, sewage.					
**Barium	No	.202 mg/l	.202 mg/l	2	2	2019	Discharges from drilling waste					
*Chlorine Residual	No	1.7 mg/l	0.2 - 2.0 mg/l	MRDL=	MRDL=	2019	Element used for disinfection					

Total Coliform samples were collected and analyzed in 2019. 12 samples collected and all samples were total coliform negative and E. coli negative.

^{**} Collected by the Springboro Water Department. (Veolia Water)

^{*}Collected by the Warren County Water Department

The table below lists all the drinking water contaminants that were detected between January 1 and December 31, 2019. The presence of the contaminants in the water does not necessarily indicate that the water poses a health risk.

Sharts Road- Required Monitoring information - 2019

Substance	Violation	Highest Level Detected	Range of Detection	MCL	MCLG	Sample Year	Sources of Substances
*Total Trihalomethane	No	23.2 ug/l	23.2 ug/l	80	0	2019	By-products of drinking water chlorination.
Bromodichloromethane	No	6.9 ug/l	6.9 ug/l	80	0	2019	By-products of drinking water chlorination.
Bromoform	No	2.6 ug/l	2.6 ug/l	80	0	2019	By-products of drinking water chlorination.
Chloroform	No	7.2 ug/l	7.2 ug/l	80	0	2019	By-products of drinking water chlorination.
Dibromochloromethane	No	6.6 ug/l	6.6 ug/l	80	0	2019	By-products of drinking water chlorination.
*HAA5 (Total Haloacetic Acids)	No	3.3 ug/l	3.3 ug/l	60	0	2019	By-products of drinking water Chlorination.
Dichloroacetic Acid	No	1.5 ug/l	1.5 ug/l	60	0	2019	By-products of drinking water Chlorination.
Dibromoacetic Acid	No	1.8 ug/l	1.8 ug/l	60	0	2019	By-products of drinking water Chlorination.
Monobromoacetic Acid	No	<1.0 ug/l	<1.0 ug/l	60	0	2019	By-products of drinking water Chlorination.
Monochloroacetic Acid	No	<1.0 ug/l	<1.0 ug/l	60	0	2019	By-products of drinking water Chlorination.
Tricholoracetic Acid	No	<1.0 ug/l	<1.0 ug/l	60	0	2019	By-products of drinking water Chlorination.

Action Levels (AL) control Copper and Lead. Samples are collected and ranked by how much lead or copper they contain. The 90th percentile of each ranking is determined. If the 90th percentile exceeds the Action Level, specific corrective actions are required. None of our 90th percentiles exceeded the Action Levels. **Warren County collected five (5) samples during 2017.**

Range of Number of Detected Detection MCL **MCLG** Substance Sample Sources Samples **Greater Than** Year **Action Level** Piping used in distribution 0.181ppm 2017 0 < 50.0-AL =system and house hold Copper 90th 1.3 ppm 0.191ppm 1.3 ppm plumbing percentile

0 ppb

AL =

15 ppb

< 5.0 -

1.59ppb

Piping used in distribution

0

system and house hold

plumbing

1.59 ppb

90th

percentile

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. The Sharts Road 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. For more information on lead in drinking water, testing methods, and steps you can take to minimize exposure: Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead, and Ohio EPA: Learn About Lead: http://epa.ohio.gov/pic/lead.aspx."

2017

CONSUMER CONFIDENCE REPORT (CCR)

2019 Water Quality Report for the Socialville Water System PWSID# 8304203

The Warren County Water Department has prepared the following information for the Socialville Water System. Included in this report is general health information, water quality test results, how to participate in decision concerning your drinking water and water system contacts. This annual water quality report describes the water source, lists test results, and contains important information about drinking water from the previous year. Reporting is a requirement of the Safe Drinking Water Act of 1996. We encourage public participation in our community's future. The Warren County Board of Commissioners meeting is held on Tuesday at 10:00 A.M. and on Thursday at 5:00 P.M. The public is welcome.

Water Source

Water for the Socialville Water System is purchased by Warren County from the Cincinnati Water Works. Water is withdrawn from both the Ohio River and the Great Miami Aquifer. Water from the Ohio River is treated at the Miller Treatment Plant which is located on the east side of Hamilton County. Water is also pulled from the Great Miami Aquifer. 13 wells located in the southern part of Butler County produce water that is treated at the Bolton Treatment Plant. Socialville also has an emergency backup system. The connection is located on Socialville-Foster road and is with the Warren County Richard Renneker Water System.

As with all surface waters, The Ohio EPA has classified the Ohio River as highly susceptible to potential contamination. The Ohio EPA has also classified their portion of the Great Miami Buried Valley Aquifer as highly susceptible to contamination. Should you need to find your Source Water Assessment Information, the report can be accessed at Ohio EPA's website by typing into the following link, http://www.app.epa.ohio.gov/gis/swpa/OH8304203.

Sources of Drinking Water Contamination

The sources of drinking water (both tap water and bottled water) included rivers, lakes, streams, pond, 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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or results from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban runoff, and residential uses;
- D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban Storm water runoff, and septic systems;
- E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA prescribes regulation which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for 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 contaminants and potential health effects can be obtained by calling the Federal Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons 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).

About your Drinking Water

The EPA requires sampling to ensure drinking water safety. The Socialville Water System conducted sampling for (Bacteria, Nitrate, Synthetic Organic Chemicals (SOC Group 1), Copper and Lead, plus Disinfection by-Products) during 2018. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

License

The Socialville Water System currently operates with an unconditioned license to operate.

Whom to Contact

For further information about water quality, contact the Warren County Water and Sewer Department.

Hours of operation are 7:30 AM and 4:30 PM, Monday through Friday:

Main Office (513)695-1377

Superintendent of Operations (513) 683-3687 FAX (513) 697-1752

WEB SITE: http://www.co.warren.oh.us/

Send correspondence to: Warren County Water and Sewer, PO Box 530, Lebanon, OH 45036-0530

An Explanation of the Water Quality Data Tables

This report is based upon tests conducted by the Cincinnati Water Works and the Warren County Water Laboratory. Terms used in the Water Quality Tables and in other parts of this report are defined here.

Maximum Contaminant Level or 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 or 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.

Action Level (AL): Action level or concentration of a contaminant when exceeded triggers treatment or other requirements which a water system must follow.

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 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.

(MRL): Minimum Reporting Limit

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.

Parts per Billion (ppb) or Micrograms per Liter (μ g/L) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years. **ppb**: parts per billion

The "<" symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

Picocuries per liter (pCi/L): A common measure of radioactivity.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Compliance Monitoring and Disinfection Requirements. Warren County Water Department 2019

Substance	Highest Level Detected	Range of Detection	Violation	MCL	Ideal Goals (MCLG)	Sample Year	Sources of Substances
Chlorine (mg/L)	1.2	0.2 - 2.0	No	MRDL=	MRDLG=	2019	Element used for disinfection

**July 23, 2019, the Socialville Water System had routine bacteriological sample report as Total Coliform Positive out of 180 samples collected and analyzed. As required by the Revised Total Coliform Rule (RTCR), April 1, 2016, the Warren County Water Lab staff collected and analyzed three system samples including the original site. These samples were tested for Total Coliform and E.coli. All three samples tested negative for Total Coliform and E.Coli. Warren County also contacted the Cincinnati Water Works (The Supplier) and they collected source water samples and those also were Total Coliform and E.coli negative.

All water systems are required to begin compliance with the new rule (Revised Total Coliform Rule, April 1, 2016). The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found, these must be corrected by the Public Water System.

The tables below list the drinking water contaminants detected between January 1 and December 31, 2019. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. These Substances were tested by *Cincinnati Water Works*

 $\textbf{Regulated Contaminants: Contaminants subject to an MCL, Action Level, or (TT) \ Treatment}$

Technique

1 ecnni	Miller Pl	ant (Ohio ver)		ant (Great River)					
Substance	Highest Level Detected	Range of Detection	Highest Level Detected	Range of Detection	MCL	MCLG	Violation	Sample Year	Sources
Fluoride	0.88 ppm	0.75- 1.10 ppm	0.88 ppm	0.72-1.0 ppm	4	4	No	2019	Erosion of natural deposits; Promote strong teeth.
Nitrate	1.30 ppm	.59-1.30 ppm	1.08 ppm	n/a	10	10	No	2019	Runoff from fertilizer; leaching from septic tanks, sewage; erosion of natural deposits.
Total Organic Carbon	2.22	1.81-3.28	nr	nr	TT^1	n.a.	No	2019	Naturally present in the environment.
Turbidity (NTU)	0.14 100% < 0.3 NTU	0.03-0.14	nr	nr	TT¹ < 1 NTU max and TT2 <0.3 NTU 95% of the time	n.a. n.a	.No	2019	Soil erosion runoff.
Barium	0.030 ppm	n.a.	0.016 ppm	na	2	2	No	2019	Erosion of natural deposits; Discharge of drilling waste and metal refineries.
Trihalomethanes	55.0 ppb	11.4-68.5 ppb	55.0 ppb	11.4-68.5 ppb	80	0	No	2019	Byproduct of drinking water chlorination
Halo acetic Acids	12.2 ppb	5.09-16.1 ppb	12.2 ppb	5.09-16.1 ppb	60	0	No	2019	Byproduct of drinking water chlorination
Lead (Jan-June) 1 st Set	90 th percentile 5.49 ppb	nd-62.1 ppb	90 th percentile 5.49 ppb	nd-62.1 ppb	15	0	No	2019	Corrosion of household plumbing; natural deposits
Copper (Jan-June) 1 st Set	90 th percentile 0.029 ppm	nd-0.145 ppm	90 th percentile 0.029 ppm	nd-0.145 ppm	1.3	0	No	2019	Corrosion of household plumbing systems; erosion of natural deposits; leaching from
Lead (July-Dec) 2 nd Set	90 th percentile 11.8 ppb	nd-50.2 ppb	90 th percentile 11.8 ppb	nd-50.2 ppb	15	0	No	2019	Corrosion of household plumbing; natural deposits
Copper (July-Dec) 2 nd Set	90 th percentile 0.022 ppm	nd-0.086 ppm	90 th percentile 0.022 ppm	nd-0.086 ppm	1.3	0	No	2019	Corrosion of household plumbing systems; natural deposits

^{*}From Cincinnati Water Works, 1st set, "7 out of 156 samples tested during the most recent compliance period were > the Action Level for Lead". For both Miller Plant and Bolton Plant public water

^{*} From Cincinnati Water Works, 1^{st} set "0 out of 156 samples tested during the most recent compliance period were > the Action Level for Copper". For both Miller Plant and Bolton Plant public water

¹ The value reported under "highest compliance level detected" for TOC is the lowest ratio between percentages of TOC actually removed to the percentage of TOC required to be removed. A value of <1 indicates that the water system is in compliance with TOC removal requirements. A value of >1 indicates a violation of the TOC removal requirements.

**From Cincinnati Water Works, 2^{nd} set, "9 out of 132 samples tested during the most recent compliance period were > the Action Level for Lead". For both Miller Plant and Bolton Plant public water

** From Cincinnati Water Works, 2^{nd} set "0 out of 132 samples tested during the most recent compliance period were > the Action Level for Copper". For both Miller Plant and Bolton Plant public water

Note1. The Ohio EPA requires monitoring certain contaminants once per year. The value is the maximum detected concentration.

TT = A required process intended to reduce the level of a contaminant in drinking water

Results of GCWW Voluntary Monitoring for Cryptosporidium: GCWW has tested for Crypto in treated waters and never detected it. GCWW also tested for Crypto in the Ohio River surface water and it was found in 0 of 22 samples during 2015.

Sodium: Tested as water leaves treatment plants Miller Plant: 30mg/l Bolton Plant: 30 mg/l. Approximately 4 cups in a liter

Average Water Hardness: Miller Plant - 8 grains per gallon (137 mg/L) Bolton Plant - 10 grains per gallon (171 mg/l)

Unregulated Contaminants for which the EPA requires monitoring 2019 collected by the *Cincinnati Water Works*

Works	1							
	Miller Plant		Bolton Plant				1	
Substance	Average Level Detected	Range of Detection	Average Level Detected	Range of Detection	Violation	MCLG	Sample Year	Sources
Chloroform	11.3 ppb	.54 – 34.0 ppb	11.3 ppb	.54-34.0 ppb	n.a.	70	2019	Byproduct of drinking water disinfection
Bromodichloromethane	10.3 ppb	3.12-17.8 ppb	10.3 ppb	3.12-17.8 ppb	n.a.	0	2019	Byproduct of drinking water disinfection
Dibromochloromethane	12.0 ppb	3.30-25.7 ppb	12.0 ppb	3.30-25.7 ppb	n.a.	60	2019	Byproduct of drinking water disinfection
Bromoform	6.63 ppb	.68-24.6 ppb	6.63 ppb	.68-24.6 ppb	n.a.	0	2019	Byproduct of drinking water disinfection.
Monochloroacetic Acid	nd ppb	nd-nd ppb	nd ppb	nd-nd ppb	n.a.	30	2019	Byproduct of drinking water disinfection.
Monobromoacetic Acid	1.39 ppb	nd-4.11 ppb	1.39 ppb	nd-4.11	n.a.	n.a.	2019	Byproduct of drinking water disinfection.
Dibchloroacetic Acid	3.57 ppb	nd-11.8	3.57 ppb	nd-11.8	n.a.	0	2019	Byproduct of drinking water disinfection.
Tricholoracetic Acid	1.06 ppb	nd-6.78	1.06 ppb	nd-6.78 ppb	n.a.	20	2019	Byproduct of drinking water disinfection.
Dibromoacetic Acid	3.07 ppb	nd-6.55 ppb	3.07 ppb	nd-6.55 ppb	n.a.	n.a.	2019	Byproduct of drinking water disinfection
Sulfate	59 ppm	42-89 ppm	43 ppm	39-46 ppm	n.a.	n.a.	2019	Erosion of natural deposits

Action Levels (AL) control copper and lead. Samples are collected and ranked by how much lead or copper they contain. The 90^{th} percentile of each ranking is determined. If the 90^{th} percentile exceeds the Action Level, specific corrective actions are required. None of our 90^{th} percentiles exceeded the Action Levels from the 30

samples collected from the Socialville System residences in 2018.

Substance	Highest Level Detected	Range of Detection	MCL	MCLG	Sample year	Violation	Sources	Number of Samples Greater Than Action Level
Copper	90 th percentile 0.0528 ppm	.00514- .157 ppm	AL= 1.3 ppm	0	2018	No	Corrosion of household plumbing; natural deposits	0
Lead	90 th percentile 3.04 ppb	<.5- 3.93 ppb	AL = 15 ppb	0	2018	No	Corrosion of household plumbing; natural deposits	0

"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. Socialville 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. For more information on lead in drinking water, testing methods, and steps you can take to minimize exposure: Safe Drinking Water Hotline at http://www.epa.gov/safewater/lead, and Ohio EPA: Learn About Lead: http://epa.ohio.gov/pic/lead.aspx."

Unregulated Contaminants for which the EPA required monitoring under the Information Collection Rule to determine where certain substances occur and whether or not the substances should be regulated. Stage II Disinfection by-products monitored by Warren County Water Department. **2019**

Substance	Highest Level Detected	Range of Detection	Violation	MCL	MCLG	Sample Year	Sources of Substances	
Total Trihalomethanes	65.9 ug/l	20.1 – 65.9 ug/l	No	80	0	2019	By-products of drinking water chlorination.	
Bromodichloromethane	17.0 ug/l	6.1 – 17.0 ug/l	No	80	0	2019	By-products of drinking water chlorination.	
Bromoform	12.5 ug/l	<1.0-12.5 ug/l	No	80	0	2019	By-products of drinking water chlorination.	
Chloroform	20.3 ug/l	2.9 – 20.3 ug/l	No	80	0	2019	By-products of drinking water chlorination.	
Dibromochloromethane	26.7 ug/l	3.2 – 26.7 ug/l	No	80	0	2019	By-products of drinking water chlorination.	
HAA5 Haloacetic acids	11.7 ug/l	5.6 – 11.7 ug/l	No	60	0	2019	By-products of drinking water Chlorination.	
Bromochloroacetic acid	4.7 ug/l	< 1.0 – 4.7 ug/l	No	60	0	2019	By-products of drinking water Chlorination.	
Dibromoacetic acid	7.4 ug/l	<1.0 - 7.4 ug/l	No	60	0	2019	By-products of drinking water Chlorination	
Dichloroacetic acid	6.6 ug/l	1.0 – 6.6 ug/l	No	60	0	2019	By-products of drinking water Chlorination.	
Monobromoacetic acid	<1.0 ug/l	<1.0 ug/l	No	60	0	2019	By-products of drinking water Chlorination.	
Monochloroacetic acid	<2.0 ug/l	<2.0 ug/l	No	60	0	2019	By-products of drinking water Chlorination.	
Trichloroacetic acid	4.0 ug/l	<1.0 – 4.0 ug/l	No	60	0	2019	By-products of drinking water Chlorination	

From August 2018 to November 2019, the Warren County Socialville Water System collected samples for UCMR 4 (Unregulated Contaminent Monitoring Rule). Assessment Monitoring for Metals, Pesticides, Alcohols, and SVOC's. Assessment Monitoring for HAAs also took place during these sampling events. The table below shows only the Analytes that had reportable values. If Analyte is not listed, then the results are below detectable limits. A list of results for this testing is available upon request.

Substance	Detected	Range	MCL	MCLG	Violation	Sample Year	Sources
Total HAA5	8.45 ug/l	5.6 – 8.45 ug/l	60	n/a	No	August 2018- November 2019	By-product of drinking water chlorination
Total HAA6	10.4 ug/l	3.15 – 10.4 ug/l	60	n/a	No	August 2018- November 2019	By-product of drinking water chlorination
Total HAA9	13.6 ug/l	7.98– 13.6 ug/l	60	n/a	No	August 2018- November 2019	By-product of drinking water chlorination

Additional Information

To ensure that tap water is safe to drink, the EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The sources of drinking water (including 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 can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: (1) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife, (2) inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming, (3) pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses, (4) 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 stormwater runoff, and septic systems, (5) radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities, (6)

Cryptospiridium is a microscopic organism that, when ingested, can result in diarrhea, fever, and other intestinal symptoms. Most healthy people can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised persons to consult their doctor about precautions to take to avoid infection. Cryptospiridium must be ingested to cause disease, and it can be spread through means other than drinking water.

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).