Waynesville Water- 2017 Annual CCR Water Quality Report

Published 2018

We are pleased to provide you this year's **Annual Water Quality Report.** This Consumer Confidence Report CCR) is designed to inform you about the quality and services we deliver to your home or business each day, every day.

We work hard to protect our water resources and to continually improve the water treatment process. We have a current, unconditioned license to operate our water system. Our goal is to provide you with a safe and dependable water supply, by protecting and improving water quality.

Our water source is known as the Little Miami Valley Buried Aquifer. Water is supplied from three (3) wells, located in the **Waynesville Water** well field. The Aquifer that supplies the Waynesville well field has been determined to have a high susceptibility to contamination due to the presence of significant potential contaminant sources in the protection area. There is no evidence to suggest that the ground water has been impacted by any significant levels of chemical contaminants from human activities.

We want our valued customers to be informed about their water utility. If you have any questions about this report or concerning your water utility, please contact us at (513) 897-8015. If you want to learn more, please attend any of our regularly scheduled council meetings on the first and third Mondays of each month at the Waynesville Government Center, 1400 Lytle Road, at 7:30PM.

At **Waynesville Water,** we work around the clock to provide top quality water to every tap. We ask that our customers help us protect our water sources, which are the heart of our community, our way of life, and our children's future. The Village of Waynesville Water currently has an unconditional OEPA License to operate.

The sources of drinking water both tap water and bottled water includes 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 materials, 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 storm water 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, EPA prescribes regulations, which limit the amounts 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. Some people may be more vulnerable to contaminants in drinking water than general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the **Safe Drinking Water Hotline 1-800-426-4791.**

Waynesville Water routinely monitors for contaminants in your drinking water according to Federal and State laws. This table shows the most recent results of our monitoring for the period of the last 5 years. Only contaminants with detections are provided. Copies are available by calling 513-897-8015.

Village of Waynesville Water Production 2017 Table of Contaminants

Regulated Contaminants

Contaminant	Violation?	Level Detected	MCL	MCLG	Range of Detection	Year Sampled	Likely Source of Contamination
Barium (ppm)	**No**	0.0744 ppm	4	4	n/a	**2016**	**Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits**
Nitrogen, Nitrate+ Nitrite (ppm)	**No**	1.81 ppm	10	10	n/a	**2017**	**Runoff from fertilizer use: leaching from septic tanks, sewage: erosion of natural deposits**
Water Distribution System 2017 Table of Contaminants							
Action Levels (AL) control Copper and Lead. If the 90th percentile exceeds the Action Level, specific corrective actions are required. No 90th percentile lead or copper samples were found to have levels in excess of the Action Level. Ten samples were taken in 2015.							
Lead (ppb)	**No**	7.2 ppb was the 90th %	AL=15 ppb	0	n/a	**2015**	**Corrosion of household plumbing systems; Erosion of natural deposit.**
1 out of 10 lead samples in 2015 was found to have a lead level in excess of the lead action level of 15 ppb.							
Copper (ppb)	**No**	215 ppb was the 90th %	AL=1300 ppb	1300 ppb	n/a	**2015**	**Corrosion of household plumbing systems; Erosions of natural deposit. Leaching from wood preservatives.**
0 out of 10 copper samples in 2015 were found to have a copper level in excess of the copper action level of 1.3 ppm (1300ppb).							
Volatile Organic Compounds							
Total Trihalomethanes TTHMs (ppb)	**No**	21.7 ppb	80 ppb	n/a	9.6- 21.7 ppb	**2017**	**Disinfectant byproducts**
Total Halo-acetic Acids HAA5's (ppb)	**No**	6.1 ppb	60 ppb	n/a	< 6.0- 6.1 ppb	**2017**	**Disinfection Byproducts**
Regulated Radioactive Contaminants							
Alpha Emitters p Ci/L	**No**	6.38	15	0	n/a	**2013**	**Erosion of natural deposits**
Combined Radium p Ci/L	**No**	1.6	5	0	n/a	**2013**	**Erosion of natural deposits**
Compliance Monitoring and Residual Disinfectant Requirements							
Total Coliform Monitoring	**No**	0	1	0	n/a	**2017**	**Safely removed using chlorine. 36 samples taken with none positive for Total Coliforms**
Total Chlorine	**No**	1.5 ppm	4 ppm MRDL	4ppm MRDLG	0.6 – 2.0 ppm	**2017**	**Water disinfection additive used to control microbes**

The average water hardness was 20 grains per gallon

Awareness of Lead in Drinking Water Service Lines and 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 compounds associated with water service lines and home plumbing. The Village of Waynesville and the Franklin-Clearcreek Water Systems are responsible for providing high quality drinking water but cannot control the variety of materials used in pluming 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 possibly being in your water, you may consider having 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 at http:/www.epa.gov/safewater/lead or one may call the Safe Drinking Water Hotline at 1-800-426-4791.

The Village of Waynesville was required to revise the 2015 CCR that was published in 2016. Revisions were made and the correct CCR was posted on the Village website along with appropriate hard copies distributed where required.

Definitions for all tables:

MCL = ***Maximum Contaminant level*** – The highest level of a contaminate that's allowed in drinking water. MCL's are set to the very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to

drink 2 liters of water every day at the MCL level for a lifetime to have a one- in- a- million chance of having the described health effect.
MCLG = ***Maximum contaminate level goal*** – The level of contaminant in drinking water below which there is no known or expected risk to health.
AL = ***Action Level*** – The concentration of a contaminant which triggers a treatment or other requirements which a water system must follow as required by the OEPA.
MRDL= *Maximum Residual Disinfectant Level*, Total Chlorine Residual MCL is MRDLG less than 4 ppm
mg/l (milligrams per liter) and ppm (*parts per million)- corresponds to one second in 11.5 days*
ppb= ***Parts per Billion- corresponds to one second in 31.7 years*** ***< less than symbol***
Picocuries per liter (**p Ci/L**) = A common measure of radioactivity N/A and n/a, not applicable

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the **Environmental Protection Agency's Drinking Water Hotline at 1-800-426-4791.**

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements to the water system. The cost of these improvements may be reflected in the billing rate structure. Billing rate adjustments may be necessary to address these necessary improvements.

Visit our website: www.waynesville-ohio.org

The Village of Waynesville periodically receives water supply during emergency occasions from the Warren County Water and Sewer Department. The water quality reported is as follows:

Warren County Water and Sewer Department

CONSUMER CONFIDENCE REPORT (CCR)

2017 Water Quality Report for the Franklin-Clearcreek Water System

PWSID# 8301603

This annual water quality report identifies the water source, lists test results, and contains important information about drinking water. 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 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:

- Presence of significant potential contaminant sources in the protection area,
- No evidence to suggest that ground water has been impacted by any significant levels of chemical contaminants from human activities.

License
The Franklin-Clearcreek 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 (WCWSD). Hours of operation are 7:30 AM and 4:00 PM, Monday through Friday:

Superintendent of Operations (513) 683-3687 **FAX (513) 697-1752**
Laboratory Supervisor (513) 583-3091 **FAX (513) 583-3093**

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 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.

ppm: parts per million
ppb: parts per billion
f/l: fibers per liter
n/r: not regulated

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).**

2017 Franklin- Clearcreek Water System Compliance Monitoring and Disinfection Requirements Tables

Substance	Highest Level Detected	Range of Detection	MCL	Ideal Goals (MCLG)	Sources of Substances
Fluoride (ppm)	1.11	0.8 - 1.3	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Chlorine (ppm)	1.6	0.2 - 2.0	4.0	4.0	Element used for disinfection
Total Coliform Monitoring	None	n/a	None	None	Safely removed using chlorine. 360 samples taken with no positive coliforms

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. One of the 90th percentiles exceeded the Action Level. **Thirty samples were taken in 2017.**

2017 Franklin- Clearcreek Water System Table of Copper and Lead Sampling

Substance	Detected	Range	MCL	MCLG	Sources	Number of Samples Greater Than Action Level
Copper (ppb)	258 ppb 90th percentile	17.3 to 627 ppb	AL = 1300 ppb	1300 ppb	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.	0
Lead (ppb)	8.018ppb 90th percentile	<2.0 to 26.00 ppb	AL = 15 ppb	0 ppb	Corrosion of household plumbing; natural deposits.	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 one (1) to five (5) 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. The WCWSD is making available lead sampling kits for a fee of $10. Call the WCWSD Main Office at 513-695-1377 for more information on these kits. 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**."

Additional Information

To ensure that tap water is safe to drink, the EPA prescribes limits on the levels 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 storm water 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 storm water runoff, and septic systems, (5) radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. 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 table below lists all the drinking water contaminants that were tested for between January 1 and December 31, 2017. The presence of the contaminants in the water does not necessarily indicate that the water poses a health risk.

2017 Franklin-Clearcreek Water System Detected Contaminants Table

Substance	Highest Level Detected	Range of Detection	MCL	Ideal Goals (MCLG)	Sources of Substances
Nitrate Nitrite (ppm)	0.902	n/a	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Total Trihalomethanes (ppb)	49.78	n/a	80	0	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants.
Bromodichloromethane (ppb)	7.760	7.34-7.760	80	0	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Bromoform (ppb)	1.51	<0.50-1.51	80	0	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Chloroform (ppb)	16.07	9.09-16.07	80	0	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
Dibromochloromethane (ppb)	5.340	3.62-5.34	80	0	By-products of drinking water chlorination. Form when naturally occurring organic matter reacts with chlorine and other disinfectants
HAA5 Halo-acetic acids (ppb)	7.63	n/a	60	0	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Bromo-chloroacetic acid (ppb)	3.587	3.47-3.587	60	0	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Dibromo-acetic acid (ppb	2.568	1.331-2.568	60	0	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Dichloro-acetic acid (ppb)	7.185	4.837-7.185	60	0	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Monobromo-acetic acid (ppb)	<1.0	<1.0	60	0	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter
Monochloroacetic acid (ppb)	<2.0	<2.0	60	0	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter

Trichloroacetic acid (ppb)	6.322	3.533-6.322	60	0	By-products of drinking water Chlorination. Are formed when chlorine reacts with naturally occurring organic matter

Throughout the year, southern portions of the Franklin- Clearcreek Water system may receive water from the Cincinnati Water Works (CWW). The following is information pertaining to the water quality provided by the Cincinnati Water Works (CWW) forwarded to the Warren County Water and Sewer Department:

Cincinnati Water Works Consumer Confidence Water Quality Report

Water is withdrawn from both the Ohio River, which is surface water, and the Great Miami Aquifer, which is groundwater. The Ohio River water is treated at the Miller Treatment Plant and Great Miami Aquifer groundwater is treated at the Bolton Treatment Plant. The finished water is then distributed to Warren County customers.

CWW Unregulated Contaminants for which the EPA requires monitoring 2017

Substance	Miller Plant Average Level detected	Miller Plant Range of Detection	Bolton Plant Average Level Detected	Bolton Plant Range of Detection	Violation	MCLG	Sources of Substances
Chloroform (ppb)	8.96	.92-25.0	8.96	.92-25.0	n/a	70	Byproduct of drinking water disinfection
Bromodichloromethane (ppb)	9.62	4.23-19.6	9.62	4.23-19.6	n/a	0	Byproduct of drinking water disinfection
Dibromochloromethane (ppb)	12.1	4.98-23.5	12.1	4.98-23.5	n/a	60	Byproduct of drinking water disinfection
Bromoform (ppb)	7.75	n/a	7.75	.56-26.3	n/a	0	Byproduct of drinking water disinfection.
Monochloroacetic Acid (ppb)	n/d	n/d-1.44	n/d	n/d-1.44	n/a	30	Byproduct of drinking water disinfection.
Monobromoacetic Acid (ppb)	1.07	nd-5.36	1.07	nd-5.36	n/a	n/a	Byproduct of drinking water disinfection.
Dichloro-acetic Acid (ppb)	2.91	nd-7.54	2.91	nd-7.54	n/a	0	Byproduct of drinking water disinfection.
Tricholor-acetic Acid (ppb)	nd	nd-3.97	nd	nd-3.97	n/a	20	Byproduct of drinking water disinfection.
Dibromo-acetic Acid (ppb)	3.51	nd-6.77	3.51	nd-6.77	n/a	n/a	Byproduct of drinking water disinfection
Sulfate (ppm)	64	47-95	n/a	n/a	n/a	n/a	Erosion of natural deposits
Chlorate (ppb) (2013)	23	n/d – 41	n/d	n/a	n/a	n/a	Detected during Unregulated Contaminant monitoring
Hexavalent Chromium Dissolved (ppb) (2013)	0.071	.048-.099	0.21	0.2-0.22	n/a	n/a	Detected during Unregulated Contaminant monitoring
1,4-Dioxane (ppb) (2013)	0.326	n/d-.575	0.545	0.276-0.814	n/a	n/a	Detected during Unregulated Contaminant monitoring
Molybdenum (ppb) (2013)	1.6	1.0-2.9	4.2	3.5-4.9	n/a	n/a	Detected during Unregulated Contaminant monitoring

Strontium (ppb) (2013)	204	170-240	170	160-180	n/a	n/a	Detected during Unregulated Contaminant monitoring
Vanadium (ppb) (2013)	0.26	nd-0.56	0.64	0.60-0.72	n/a	n/a	Detected during Unregulated Contaminant monitoring

The tables below list the CWW drinking water contaminants detected between January 1 and December 31, 2017. 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.

CWW Regulated Contaminants: Contaminants subject to an MCL, Action Level, or Treatment Technique

	Miller Plant		**Bolton Plant**				
Substance	**Highest Level Detected**	**Range of Detection**	**Highest Level Detected**	**Range of Detection**	**MCL**	**Ideal Goals (MCLG)**	**Sources of Substances**
Fluoride (ppm)	0.87	0.73-1.01	0.88	0.62-1.00	4	4	Erosion of natural deposits; additive that promotes strong teeth.
Nitrate (ppm)	1.39	0.55-1.39	0.94	n/a	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Total Organic Carbon (ppm)	1.90	1.73-3.43	nr	nr	TT[1]	n/a	Naturally present in the environment.
Turbidity	0.09 100% < 0.3 NTU	0.04 - 0.15	nr	nr	n/a	TT[1] < 1 NTU max and TT2 <0.3 NTU 95% of the time	Soil erosion runoff.
Barium (ppm)	0.036	n/a	0.017	n/a	2	2	Erosion of natural deposits; Discharge of drilling waste; discharge from metal refineries.
Trihalomethanes (ppb)	51.7	18.7-71.2	51.7	18.7-71.2	80	0	Byproduct of drinking water chlorination
Halo-acetic Acids (ppb)	11.7	3.30-17.7	11.7	3.30-17.7	60	0	Byproduct of drinking water chlorination
Lead (ppb)	90th percentile 10 ppb	Nd- 53.8	90th percentile 10 ppb	Nd- 53.8	15	0	Corrosion of household plumbing; natural deposits.
Copper (ppm)	90th percentile 0.027 ppm	n/a	90th percentile 0.027 ppm	n/a	1.3	0	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Note 1. 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
nd = none detected
nr = not regulated

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: 33mg/ 1
Bolton Plant: 31mg/l.

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

[1] The value reported under "highest compliance level detected" for TOC is the lowest ratio between percentage 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.