2018 Water Quality Report

Greene County continues to meet all Ohio EPA standards and through continuing improvements, will be able to meet the projected needs of our customers.

CONTACT US

Greene County Sanitary Engineering Department

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www.co.greene.oh.us

Greene County Commissioners

937-562-5006

Safe Drinking Water Hotline

(800) 426-4791

Well Field Susceptibility

The OEPA has determined that the aquifers that serve the Greene County Northwest Regional well field have a moderate susceptibility to contamination, and one serving the Southwest Regional well field has a high susceptibility. This does not mean that the well fields are, or will become, contaminated, just that conditions are such that ground water could be impacted by contaminants, unless we continue protective measures.

Greene County has an unconditional license to operate. Public participation is encouraged. Please contact Ken French @ (937)562-7101.

Definition of Terms

Definition of Terms contained within this report:

Maximum contaminant Level Goal (MCLG): The level of a contaminant in the drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using available treatment technology.

Parts per Million (ppm) or Milligrams per Liter (mg/l): 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 (ug/l) are also units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

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 that a water system must follow.

Treatment Technique (TT): A required process to reduce the level of a contaminant in drinking water.

Risk Factors Explained

The following substances are found in our water, normally at levels below the action levels. There are some risk factors that could be involved with even low levels of these substances:

A. Arsenic

EPA has issued rules regarding the drinking water standard for arsenic. Arsenic is a naturally occurring mineral known to cause cancer in humans in high concentrations. EPA continues to research the health effects of low levels of arsenic. It is linked to other health effects such as skin damage and circulatory problems. Some people who drink water containing arsenic in excess of the MCL, over many years, could experience skin damage or problems with their circulatory system, and may have increased risk of getting cancer.

B.Nitrate

Nitrate in drinking water, at levels above 10 ppm, is a health risk for infants of less than six (6) months of age. High nitrate levels in drinking water can cause blue baby syndrome. High nitrate levels can also increase the risk of a particular kind of anemia in pregnant women. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, or are pregnant,you should ask for advice from your health care provider.

Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

C: 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.

Greene County 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 want to have your water tested.

Information on lead in drinking water, testing methods, and steps you can take to minimize exposure, is available from the Safe Drinking Water Hotline at:

http://www.epa.gov/safewater/lead

Greene County has mapped each of their public water systems which provide additional information on the risk of lead exposure. These maps can be accessed on the Greene County Sanitary Engineering Department website at: www.co.greene.oh.us/938/Water-Quality-Reports

WHY DOES MY GREENE COUNTY WATER REPORT INCLUDE A WATER REPORT FROM ANOTHER MUNICIPALITY?

The Greene County Water Report may include a water report from another municipality because Greene County water lines do not extend into certain areas; therefore Greene County purchases water from three municipalities. These municipalities are Dayton, Xenia, and Fairborn. Greene County is required by law to include water quality information from those municipalities.

Sources of Drinking Water

The sources of drinking water include wells, rivers, lakes, streams, ponds, reservoirs, and springs. In Greene County, the source of drinking water is wells that bring groundwater to the surface.

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 result 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 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, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems.

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants.

The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS, or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice 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 (1-800-426-4791).

FAQs

State law requires the addition of fluoride to treated water for larger systems where the content is 1.0 parts per million No fluoride is added to the water at Southwest Regional Water System and has a natural content of .03 part per million.

The chlorine content of the finished water is 1.3 parts per million, except for the Southwest Regional Water System where it is < 0.2 parts per million.

The pH of the finished water is 7.55. A pH of 7.0 is neutral.

The water at Northwest Regional has 27 grains of hardness. The Eastern Regional areas (including Cedarville, Shawnee Hills Lake, and Wilberforce) have 25 grains of hardness. The Southwest Regional water has 15-18 grains of hardness.

Greene County Water Source

Greene County has a current, unconditional license to operate our water system. The Northwest Regional Water Treatment Plant serves the Beavercreek Community, and extends into Xenia Township, parts of Kettering, Sugarcreek, and Bath Townships, to serve the Career Center and Country Club Estates. It receives water from three (3) well fields, which all draw water from the Little Miami River Buried Valley Aquifer. The well fields are located on Beaver Valley Rd., Shakertown Rd., and Orchard Lane.

The City of Xenia also uses the Little Miami River Buried Valley Aquifer. Greene County purchases water from Xenia for residents in Cedarville, Shawnee Hills Lake, and Wilberforce. The Southwest Regional Water Treatment Plant serves residents in Sugarcreek and Spring Valley Townships. The water source is the Little Miami River Buried Valley Aquifer, with the well field off St. Rt. 42.

Some residents on the western side of Beavercreek, Sugarcreek Township and Kitridge Road, in Bath Township, receive their water from the City of Dayton, which uses the Great Miami Buried Valley Aquifer as its water source.

2018 report 2017 data

Greene County Sanitary Engineering - Division of Water Supply and Treatment

Regulated Substance	Highest Level Allowed (MCL)	Ideal Goals (MCLG)	Northwest Regional WTP 2903512			Southwest Regional WTP 2903912			Eastern Regional WTP 2906103			Greene County/Dayton 2900803 Entrada			Greene County/Dayton 2904203 Clyo			Greene County/Dayton 2904103 Swigart			Greene County/Dayton 2905003 Kitridge			Greene County/Fairborn 2956203			Possible Source of Contamination
			Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	Violation	Highest Level Detected	Range of Detection	
- Regulated at the Treatment Plant																											
Fluoride (ppm)	4	4	-	1.58	0.47 - 1.58	-	-	-	-	1.50	0.83 - 1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural geology/supplement
Nitrate (ppm)	10	10	-	1.03	0.1 - 1.03	-	2.54	NA	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	fertilizer runoff/natural geology
Nitrite (ppm)	10	10	-	NR	NR	-	NR	NR	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	fertilizer runoff/natural geology
Radium 228 (pCi/l)	5	0	-	0.668	+/- 1.33	-	0.81	+/-1.62	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural deposits
Gross Alpha	15	0	-	0.728	+/- 0.384	-	0.13	+/-0.53	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural deposits
Arsenic (ppb)	10	0	-	7.12	4.16 - 7.12	-	-	-	-	*	*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	natural deposits
- Regulated at the Customer's Tap																											
Lead (ppb) [1]	AL=15	0	-	5.04 [1]	<5 - 80.2	-	<5 [1]	7.24	-	<5 [1]	<5 - 55.4	-	<5 [1]	ND	-	<5 [1]	ND	-	<5 [1]	ND	-	<5 [1]	ND	-	<5 [1]	<5 - 11.3	corrosion of household plumbing materials
Copper (ppb) [1]	AL=1300	1300	-	187 [1]	20.6 - 250	-	166 [1]	52 - 236	-	458 [1]	70.1 - 1250	-	48.8 [1]	<16.0 - 72.2	-	65.31	28.6 - 73.0	-	65.4 [1]	20.3-70.9	-	<14.2 [1]	<5 - 21.6	-	196 [1]	<9.82 - 233	
Number of samples				30			10			20			10			10			10			5			10		
# samples over the action level				1			0			1			0			0			0			0			0		
- Regulated in the Distribution System																											
Chlorine (ppm)	MRDL - 2	MRDLG - 2	-	1.27 [3]	0.80 - 1.27		01.80 [3]	0.00 - 1.80		0.94 [3]	0.00 - 0.94		1.10 [3]	0.40 - 1.10		1.10 [3]	0.60 - 1.10		1.20 [3]	0.90 - 1.20		1.20 [3]	0.00 - 1.20		1.70 [3]	0.80 - 1.70	water additive to control microbes
				Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average			Yearly Running Average		
Trihalomethanes (ppb)	80.00	0.00	-	30.33	8.54 - 55.21	-	14.24	13.80 - 14.47	-	38.23	33.83 - 42.62	-	26.18	N/A	-	29.80	N/A	-	33.12	N/A	-	33.50	N/A	-	18.75	17.04 - 20.45	by-products of chlorination
Haloacetic Acids (ppb)	60.00	0.00	-	9.80	3.33 - 25.58	-	4.91	3.74 - 6.09	-	9.21	4.44 - 13.97	-	4.31	N/A	-	8.05	N/A	-	6.40	N/A	-	6.31	N/A	-	7.40	7.04 - 7.76	
Unregulated Compounds																											
Bromodichloromethane (ppb)	-	-	-	9.57	2.59 - 15.24	-	4.54	4.43 - 4.64	-	8.88	8.45 - 9.30	-	7.37	5.62 - 9.99	-	7.90	6.66 - 10.47	-	8.37	6.98 - 10.70	-	12.29	N/A	-	4.39	3.18 - 5.60	by-products of chlorination
Bromoform (ppb)	-	-	-	1.62	0.76 - 2.48	-	4.10	4.09 - 4.11	-	0.57	0.54 - 0.59	-	2.20	1.59 - 3.25	-	2.33	1.89 - 2.86	-	2.18	1.68 - 3.05	-	3.32	N/A	-	0.57	0.50 - 0.63	
Chloroform (ppb)	-	-	-	13.46	2.42 - 31.31	-	5.13	4.99 - 5.27	-	24.34	20.51 - 28.16	-	5.24	3.80 - 7.50	-	6.33	4.69 - 9.42	-	7.68	3.06 - 9.53	-	13.44	N/A	-	5.38	3.53 - 7.23	
Dibromochloromethane (ppb)	-	-	-	7.20	2.54 - 10.38	-	3.37	3.29 - 3.45	-	4.45	4.33 - 4.57	-	7.17	5.52 - 9.60	-	7.03	5.91 - 9.14	-	7.52	6.32 - 9.57	-	10.18	N/A	-	2.96	2.34 - 3.57	
Bromochloroacetic Acid (ppb)	-	-	-	4.22	1.01 - 7.14	-	1.82	1.54 - 2.10	-	3.49	3.12 - 3.86	-	2.39	2.20 - 2.58	-	2.92	2.39 - 3.52	-	3.31	2.15 - 4.20	-	4.26	N/A	-	3.22	2.45 - 3.99	
Dibromoacetic Acid (ppb)	-	-	-	3.01	1.09 - 5.00	-	1.54	1.42 - 1.67	-	1.55	1.47 - 1.63	-	1.94	1.46 - 2.25	-	2.65	2.29 - 3.29	-	2.82	1.99 - 3.71	-	3.63	N/A	-	2.44	1.46 - 3.42	
Dichloroacetic Acid (ppb)	-	-	-	5.96	1.24 - 13.23	-	2.84	2.32 - 3.37	-	7.48	6.95 - 8.00	-	2.20	1.71 - 2.95	-	2.40	1.71 - 3.08	-	3.00	1.76 - 3.75	-	4.19	N/A	-	3.08	2.58 - 3.58	
Monobromoacetic acid (ppb)	-	-	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	N/A	-	ND	ND	
Monochloroacetic acid (ppb)	-	-	-	5.64	2.38 - 8.84	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	ND	-	ND	N/A	-	ND	ND	
Trichloroacetic Acid (ppb)	-	-	-	3.42	2.02 - 6.17	-	1.05	ND - 1.05	-	4.39	4.34 - 4.44	-	1.40	1.40 - 1.40	-	1.00	1.00 -1.00	-	1.06	1.06	-	1.27	N/A	-	1.37	1.37 - 1.37	

1 - 90th percentile value - used to determine compliance as per USEPA

2. NR = Not required

3 - Quarterly running average

PWS - Public Water Supply

AL - action level
N/A - not applicable
ND - not detected
< - less than

WTP - Water Treatment Plant
WS - Water Supply
MCL - Maximum Contaminent Level
MCLG - Maximum Contaminent Level Goal

* - see Xenia 2016 CCR

MRDL - Maximum Residual Disinfectant Level -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

MRDLG - Maximum Residual Disinfectant Goal - 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.

"Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and is intended to identify locations in our distribution system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DPBR, beginning in 2012. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both THMs and HAA5s."