

Village of Green Springs PWS ID# 7400512 Drinking Water Consumer Confidence Report For 2020

The Village of Green Springs has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts. The Village of Green Springs is constantly striving to maintain and improve its water treatment and water distribution systems in order to provide you, the consumer, with the best possible water.

During the reporting period the Village had a Conditional License to operate its water system. (In 2020, we had a conditional license to operate our public water system. The conditions require us to address ongoing violations. For more information on these violations, contact (John Miller, Village Administrator) at 419-603-8150.

Source Water Information

During 2020, the Village of Green Springs purchased its water from the City of Clyde. The Clyde Water Plant receives surface water from the Beaver Creek watershed. This watershed covers an area of approximately 56 square miles and the water received needs extensive treatment before being delivered to your homes. On average, Clyde pumps 250-500 million gallons of water a year from the runoff of this area and produces 250-500 million gallons of treated water per year.

The City of Clyde's public water system uses surface water drawn from an intake on Beaver Creek. For the purposes of source water assessments in Ohio, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens, which may rapidly arrive at the public drinking water intake with little warning or time to prepare. The City of Clyde's drinking water source protection area contains potential contaminant sources such as agriculture, home construction, oil and gas production activities, junk yards and landfills, above ground storage tanks, airports, other commercial sources and roadways.

The City of Clyde's public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect Beaver Creek. More detailed information is provided in the City of Clyde's Drinking Water Source Assessment Report, which can be obtained by calling the Clyde WTP Superintendent at (419) 547-9805.

What are sources of contamination to drinking water?

The sources of drinking water, both tap water and bottled water, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and 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 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 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 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).

Who needs to take special precautions?

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 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 (1-800-426-4791).

Lead Education

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 Village of Green Springs is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at <http://www.epa.gov/safewater/lead>.

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. Samples were collected for several different contaminants during 2020, most of which were not detected in the Village of Green Springs water supply. 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, is more than one year old.

The Clyde Water Plant conducted sampling for various contaminants during 2020. Information on those contaminants may be found in the City of Clyde Water Treatment Plant 2020 Consumer Confidence Report for Drinking Water included with this report.

Listed below is information on those contaminants that were found in the Village of Green Spring's drinking water.

Contaminants (units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Volatile Organic Contaminants							
Haloacetic Acids (HAA5) (ppb) DS201 & DS202	0	60	22.7	16.9 – 27.2	NO	2020	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM) (ppb) DS201 & DS202	0	80	55.9	36.8 – 97.2	NO	2020	By-product of drinking water chlorination.
Residual Disinfectants							
Total Chlorine (ppm)	MRDL= 4	MRDLG= 4	0.7	0.4 – 1.0	NO	2020	Water additive used to control microbes
Inorganic Contaminants							

Lead and Copper						
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants
Lead (ppb)	15 ppb	0	0	NO	2020	Corrosion of household plumbing systems
	0 out of _10_ samples were found to have lead levels in excess of the lead action level of 15 ppb.					
Copper (ppm)	1.3 ppm	0	0	NO	2020	Corrosion of household plumbing systems
	0 out of _10_ samples were found to have copper levels in excess of the copper action level of 1.3 ppm.					

Violations:

The Village has added equipment into its water tower, including recirculation pump, aeration nozzles, and power venting. In large part, the installation of this equipment has contributed to the Village having no TTHM violations for the 2020 calendar year.

Total Trihalomethanes (TTHM's)

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

In 2020 we had a current, unconditioned license to operate our water system.

Listed below is information on those contaminants that were found in the City of Clyde drinking water.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Microbiological Contaminants:							
Turbidity (NTU)	NA	TT	0.275	.024-0.275	NO	2020	Soil Runoff
Turbidity (% of samples meeting standards)	NA	TT	100.0%	100%	NO	2020	Soil Runoff
Total Organic Carbon (TOC) ***	NA	TT	2.11	1.83-2.58	NO	2020	Naturally present in the environment
Radioactive Contaminants:							
Radium-228 (pCi/l)	0	5****	2.2		NO	2019	Erosion of natural deposits
Inorganic Contaminants							
Inorganic Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Nitrate (ppm)	10	10	1.14	<0.50-1.14	No	2020	Runoff from fertilizer use;leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4.0	1.04	0.81-1.18	No	2020	Erosion of natural deposits, Water additive to promote strong teeth;Discharge from fertilizer and aluminum factories
Lead and Copper (Units)							
Lead and Copper (Units)	Action Level	Individual Results over the AL	90% of tests were less than	Violation	Sample Year	Typical Source of Contaminants	
Lead (ppb) **	AL=15	N/A	<4	No	2020	Corrosion of household plumbing systems; Erosion of natural deposits	
Zero samples out of twenty was found to have lead levels in excess of Action Level of 15 ppb.							
Copper (ppm) **	AL=1.3	N/A	0.039	NO	2020	Corrosion of household plumbing systems, erosion of natural deposits	
Zero samples out of twenty was found to have copper levels in excess of Action Level of 1.3ppm.							
Disinfection Byproducts							
Disinfection Byproducts	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
TTHM- Total Trihalomethane (ppb)	N/A	80	64.6	24.7- 92.4	No	2020	By-product of drinking water chlorination
HAA (ppb) Haloacetic Acids	N/A	60	26.2	15.7- 32.9	No	2020	By-product of drinking water chlorination
Residual Disinfectants							
Residual Disinfectants	MRDLG	MRDL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Total Chlorine(ppm)	4	4	1.59	0.60-2.20	No	2020	Water additive used to control microbes
Unregulated Contaminants							
Unregulated Contaminants	MCLG	MCL	AVG.	RANGE	Violation	Year	Typical Source of Contaminants
Chloroform (ppb)	N/A	N/A	47.50	18.8-81.6	No	2020	By-product of drinking water chlorination*
Bromoform (ppb)	N/A	N/A	<0.50	<0.50	No	2020	By-product of drinking water chlorination*
Bromodichloromethane (ppb)	N/A	N/A	7.00	4.8-8.4	No	2020	By-product of drinking water chlorination*
Dibromochloromethane (ppb)	N/A	N/A	1.60	1.00-2.10	No	2020	By-product of drinking water chlorination*
Monochloroacetic Acid (ppb)	N/A	N/A	<2.0	<2.0	No	2020	By-product of drinking water chlorination*
Dichloroacetic Acid (ppb)	N/A	N/A	18.70	11.1-27.1	No	2020	By-product of drinking water chlorination*
Trichloroacetic Acid (ppb)	N/A	N/A	4.00	3.2-4.7	No	2020	By-product of drinking water chlorination*
Monobromoacetic Acid (ppb)	N/A	N/A	<1.0	<1.0	No	2020	By-product of drinking water chlorination*
Dibromoacetic Acid (ppb)	N/A	N/A	1.30	<1.0-1.6	No	2019	By-product of drinking water chlorination*

* Unregulated contaminants monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.

** Lead and Copper tests were done in 2020. The next set will be done in 2023.

*** The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.

**** This MCL in for Combined Radium 226/228 we were required to only check for Radium -228 .

Definitions of some terms contained within this report.

Maximum Contaminant Level Goal (MCLG):

The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is 0.3 NTU in 95% of the samples analyzed each month, and shall not exceed 1 NTU at any time. As reported on page #3, the Clyde Water Plant highest recorded turbidity result for 2020 was 0.275 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection by-products. These by-products include trihalomethanes (THM's) and haloacetic acids (HAA5's). Drinking water containing these by-products in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increase risk of getting cancer.

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 the best available treatment technology.

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 (ug/L): are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

Maximum Residual Disinfection 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 Disinfection Level Goal (MRDLG): the level of residual disinfectant below which there is no known or expected risk to health.

Not applicable: (NA)

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

How do I participate in decisions concerning my drinking water? By attending the monthly council meetings, which are held on the 1st and 3rd Mondays of every month at 7:00 p.m. at the municipal building. **For more information** on your drinking water contact John Miller, Village Administrator at (419) 639-2123.

Notice to water users having a need for continuous water supply:

Medical certification forms are available upon request by contacting the Village at (419) 639-2123. This form is used to verify that discontinuation of your water service or being without water service for any length of time would make the operation of necessary medical equipment impossible or impractical, or such discontinuation of water service would otherwise be life threatening or dangerous to the health and welfare of individual person(s) residing in your household.

A final word: The Village also conducts non-compliance quarterly TTHM & HAA5 sampling from the raw water line that feeds the Village from the City of Clyde. The Village does this to ensure the TTHM reduction equipment is performing to its standards and working accordingly. The Village of Green Springs strives to provide you with the water you need, where and when you need it. Careful monitoring takes place daily to keep it that way. The Village of Green Springs works hard to earn your trust. **The City of Clyde CCR will be available for all to view on the Village of Green Springs website and also the village Facebook page.**

System Contacts:

Adam Greenslade, Mayor (419) 639-2123

John Miller, Village Administrator (419) 639-2123

If a potential or actual cross-connection contamination hazard is identified, the customer will be required to eliminate the hazard and/or install an appropriate backflow preventer at the service connection and/or at the hazard.

Special Conditions

Auxiliary Water Systems

What is an auxiliary water system?

It is any water system on or available to your property other than the public water system. Used water or water from wells, cisterns or open reservoirs that are equipped with pumps or other sources of pressure, including gravity are examples.

What protection is required?

- The auxiliary water system must be completely separated from water supply plumbing served by a public water system; and
 - An approved backflow preventer must be installed at the service connection (where the public water system connects to the customer's plumbing system).
- OR
- The auxiliary water system must be eliminated.

Are there exceptions?

At their discretion, the water supplier may waive the requirement for a backflow preventer at the service connection if all the following conditions are met:

- All components of the auxiliary water system, including pumps, pressure tanks and piping, are removed from the premises, which are defined as all buildings, dwellings, structures or areas with water supply plumbing connected to the public water system.

- The possibility of connecting the auxiliary water system to the water supply plumbing is determined by the water supplier to be extremely low.
- No other hazards exist.
- The customer enters into a contract with the water supplier, as described below.

The contract will require the customer:

- To understand the potential hazard of a cross-connection.
- To never create a cross-connection between the auxiliary water system and the public water system.
- To allow an inspector to survey their property for hazards as long as the contract is in effect.
- To face loss of service and other penalties if the contract is violated.

The water supplier must perform an annual inspection of the customer's contract-regulated property to verify the conditions have not changed, which would warrant installation of a backflow preventer. The water supplier must, by law, do everything reasonably possible to protect the water system from contamination.

Booster Pumps

What is the concern?

Booster pumps connected to plumbing systems or water mains can cause backsiphonage by reducing the water mains. The following requirements are in place to help prevent backsiphonage:

- Booster pumps, not used for fire suppression, must be equipped with a low suction cut-off switch that is tested and certified every year;
- Alternately, when a booster pump is necessary for one-, two- and three-family dwellings, it is preferred that the booster pump draw from a surge tank filled through an air gap; and

- Booster pumps, used in a fire suppression system, must be equipped with either a low suction throttling valve on the discharge side or be equipped with a variable speed suction limiting control system. Low-pressure cut-off devices will suffice for fire pumps installed prior to August 8, 2008, until a significant modification is warranted, at which point the minimum pressure sustaining method must be updated. Each of these methods must be tested and certified each year.

Contacts

Need more information?

Questions concerning backflow prevention and cross-connection control may be directed to your local water department or to your local Ohio EPA District Office at the following numbers:

Northwest District	(41 9) 352-8461
Northeast District	(33 0) 963-1200
Southwest District	(93 7) 285-6357
Southeast District	(74 0) 385-8501
Central District	(61 4) 728-3778

Questions regarding internal plumbing in the home may be directed to your local plumbing authority or to the Ohio Department of Commerce, Plumbing Administrator, at (614) 644-3153.

John Kasich, Governor
Craig W. Butler, Director
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Backflow Prevention and Cross-Connection Control

Protecting our
Public Water System

August 2015



Division of Drinking and Ground Waters
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2752
www.epa.ohio.gov

What is a cross-connection?

Any physical connection created between a possible source of contamination and any drinking water system piping.

What is backflow?

It is the flow through a cross-connection from a possible source of contamination back into the drinking water system. It occurs when a cross-connection is created and a pressure reversal, either as backsiphonage or backpressure, occurs in the water supply piping.

Why be concerned?

- ALL cross-connections pose a potential health risk.
- Backflow can be a health hazard for your family or other consumers if contaminated water enters your water supply plumbing system and is used for drinking, cooking or bathing. Chemical burns, fires, explosions, poisonings, illness and death have all been caused by backflow through cross-connections.
- Backflow occurs more often than you think.
- You are legally responsible for protecting your water supply plumbing from backflow that may contaminate drinking water, either your own or someone else's. This includes complying with the plumbing code and not creating cross-connections.

What causes backsiphonage?

Backsiphonage occurs when there is a loss of pressure in a piping system. This can occur if the water supply pressure is lost or falls to a level lower than the source of contamination. This condition, which is similar to drinking from a glass with a straw, allows liquids to be siphoned back into the distribution system.

What causes backpressure?

Backpressure occurs when a higher opposing pressure is applied against the public water system's pressure. This condition allows undesirable gases or liquids from another system to enter the drinking water supply. Any pumping system (such as a well pump) or pressurized system (such as steam or hot water boilers) can exert backpressure when cross-connected with the public water system.

What can I do?

- Be aware of and eliminate cross-connections.
- Maintain air gaps. Do not submerge hoses or place them where they could become submerged.
- Use hose bib vacuum breakers on fixtures (hose connections in the basement, laundry room and outside).
- Install approved, testable backflow preventers on lawn irrigation systems.
- Do not create a connection between an auxiliary water system (well, cistern, body of water) and the water supply plumbing.

What are some common backflow hazards that threaten the homeowner and other consumers?

- Hose connections to chemical solution aspirators to feed lawn and shrub herbicides, pesticides or fertilizers.
- Lawn irrigation systems.
- Chemically treated heating systems.
- Hose connections to a water outlet or laundry tub.
- Swimming pools, hot tubs, spas.
- Private and/or non-potable water supplies located on the property.
- Water-operated sump drain devices.
- Feed lots/livestock holding areas or barnyards fed through pipes or hoses from your water supply plumbing.

What are examples of cross-connection and backflow scenarios?

- Soapy water or other cleaning compounds backsiphon into the water supply plumbing through a faucet or hose submerged in a bucket or laundry basin.
- Pool water backsiphons into the water supply plumbing through a hose submerged in a swimming pool.
- Fertilizers/pesticides backsiphon into the water supply plumbing through a garden hose attached to a fertilizer/pesticide sprayer.
- Chemicals/pesticides and animal feces drawn into the water supply plumbing from a lawn irrigation system with submerged nozzles.
- Bacteria/chemicals/additives in a boiler system backsiphon into the water supply plumbing.
- Unseal water pumped from a private well applies backpressure and contaminates the public water supply through a connection between the private well discharge and the potable water supply plumbing.

What must be done to protect the public water system?

The public water supplier must determine potential and actual hazards. If a hazard exists at a customer's public water supply service connection, the customer will be required to install and maintain an appropriate backflow preventer* at the meter and/or at the source of the hazard.

*Check with your water supplier to verify which backflow preventer is required before purchase or installation.

Who is responsible?

In Ohio, the responsibility for preventing backflow is divided. In general, state and local plumbing inspectors have authority over plumbing systems within buildings while Ohio EPA and water suppliers regulate protection of the distribution system at each service connection.

Water customers have the ultimate responsibility for properly maintaining their plumbing systems. It is the homeowner's or other customer's responsibility to ensure that cross-connections are not created and that any required backflow preventers are tested yearly and are in operable condition.

What is the law?

Ohio Administrative Code Chapter 3745-95 requires the public water supplier to protect the public water system from cross-connections and prevent backflow situations. The public water supplier must conduct cross-connection control inspections of their water customer's property to evaluate hazards. Local ordinances or water department regulations may also exist and must be followed in addition to state regulations.