

City of Greenville



Drinking Water
Consumer Confidence Report
For 2020

Introduction

The City of Greenville 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. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. In 2020, the Water Treatment Plant installed a mixer in the west clarifier, replaced lime slurry pump 3, updated remote telemetry and replaced turbidimeters. The waterline under the creek on North Broadway was replaced, along with East Water Street from Walnut to Memorial. Programming changes are ongoing to ensure compliance with regulations and to maximize the operation of the system.

Source Water Information

The City of Greenville receives its drinking water from the Greenville Creek and eight wells located east and south of the treatment plant. Approximately two-thirds of the water treated is from Greenville Creek. During periods of high turbidity in the stream, groundwater from the wells is utilized. The City of Greenville has an endorsed Wellhead Protection Plan and Source Water Assessment Plan.

For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to the intake. Based on the information compiled for this assessment, the City of Greenville surface water source protection area is most susceptible to contamination from agricultural, residential and commercial sources, and from accidental releases and spills. Ground water is generally less susceptible to contamination than surface water, and the aquifer used by the City of Greenville water system has a degree of protection from an overlying layer of low-permeability sediments. However, combined systems such as Greenville's mix surface water and ground water together before distributing it to the public. In these cases, for the sake of being protective, the susceptibility rating is based on the more susceptible source. Therefore, the overall susceptibility rating for the City of Greenville's water system is high. It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses and other activities that are potential sources of contamination may change with time. While the source water for the City of Greenville Public Water System is considered susceptible to contamination, historically, Greenville has effectively treated this source water to meet drinking water quality standards. Please contact Gary J. Evans II, Superintendent of Water, Distribution & Utilities at 937-548-2296 if you would like more information about the assessment.

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, USEPA 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 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. Immunocompromised 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).

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The City of Greenville conducted sampling for bacteria, inorganic, radiological, synthetic organic, and volatile organic during 2020. Samples were collected for a total of thirty-three different contaminants most of which were not detected in the City of Greenville's 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, are more than one year old.

Monitoring & Reporting Violations & Enforcement Actions

During 2020, Greenville Water Department did not have any monitoring or reporting violations.

Table of Detected Contaminants

How to read the Water Quality Data Table: EPA establishes the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. The table shows the concentrations of detected substances in comparison to regulatory limits. Substances that were tested for, but not detected, are not included in this table.

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

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Microbiological Contaminants							
Turbidity (NTU)	NA	TT	0.4	0.06 - 0.40	No	2020	Soil runoff
Turbidity (% meeting standard)	NA	TT	99.9%	99.9% - 100%	No	2020	
Inorganic Contaminants							
Barium (ppm)	2	2	0.012	NA	No	2020	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	2.90	0.10 - 2.90	No	2020	Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.20	NA	No	2020	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Synthetic Organic Contaminants including Pesticides and Herbicides							
Atrazine (ppb)	3	3	0.13	NA	No	2020	Runoff from herbicides used on row crops
Disinfection Byproducts							
Total Trihalomethanes TTHM (ppb)	NA	80	59.5	14.8 - 90.5	No	2020	By-product of drinking water chlorination
Haloacetic Acids HAA5 (ppb)	NA	60	18	<6.0 - 29.9	No	2020	By-product of drinking water chlorination
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG 4	MRDL 4	1.24	1.1 - 1.52	No	2020	Water additive used to control microbes

Total Organic Carbon (TOC)						
MCL	Minimum Ratio of % removal to require % removal	Level Found	Range of Monthly ratios	Violation	Year Sampled	Typical source of Contaminants
TT	1	1	1 - 2.83	No	2020	Naturally present in the environment

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	NA	<2.0	No	2019	Corrosion of household plumbing systems; Erosion of natural deposits
	0 out of 30 samples were found to have lead levels in excess of the lead AL of 15 ppb.					
Copper (ppm)	1.3	NA	0.013	No	2019	Corrosion of household plumbing systems; Erosion of natural deposits
	0 out of 30 samples were found to have copper levels in excess of the copper AL of 1.3 ppm.					

Unregulated Contaminants*				
Contaminants (Units)	Average	Range	Year Sampled	Typical source of Contaminants
Chloride (ppm)	28.0	28.0	2020	Erosion of natural deposits.
Sodium (ppm)	31.2	31.2	2020	Erosion of natural deposits; leaching.

TOC

The value reported under “Level Found” for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.

PFAS

In 2020, our PWS was sampled as part of the state of Ohio’s drinking water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and none were detected in our finished drinking water. For more information about PFAS, please visit pfas.ohio.gov.

Turbidity

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 below, the Greenville Water Department's highest recorded turbidity result for 2020 was 0.4 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.9%.

Violations

The City of Greenville did not have any MCL, treatment technique, filtration or disinfection (CT) violation or action level exceedance during 2020.

Lead Educational Information

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. City of Greenville 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>.

Cryptosporidium Information

City of Greenville monitored for Cryptosporidium in the source water during 2017. Cryptosporidium was detected in two of twelve samples collected from the source water. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring of source water indicated the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing a life threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Revised Total Coliform Rule (RTCR) Information

All water systems were required to begin compliance with a new rule, the Revised Total Coliform Rule, on 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 public 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 (PWS).

- (a) Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments.
- (b) During the past year we were required to conduct one level one assessment. One level one assessment was completed.
- (c) In addition, we were required to take two corrective actions and we completed two of these actions.
- (d) The reason we were required to conduct the assessment was due to the fact that two samples tested positive for total coliform during routine sampling in the same month. The corrective action taken was sampling location investigation and subsequent routine testing that has resulted in negative results.
- (e) All corrective actions required by the Ohio EPA were completed and accepted.

License to Operate (LTO) Status Information

In 2020 we had an unconditioned license to operate our water system.

Public Notice

Greenville Water Department has no public notifications that are required.

Public Participation and Contact Information

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Greenville City Council which meets the first and third Tuesday of each month at 7:30pm at 100 Public Square. For more information on your drinking water contact Gary Evans II at 937-548-2296 or the Utility Billing Office at 937-548-1815.

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

- Not Applicable (NA): Indicates when information in a data table is not provided because it does not apply.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- Contact Time (CT) means the mathematical product of a “residual disinfectant concentration” (C), which is determined before or at the first customer, and the corresponding “disinfectant contact time” (T).
- Microcystins: Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.
- Cyanobacteria: Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations can pose a risk to public health.
- Cyanotoxin: Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins, and skin toxins. Also sometimes referred to as “algal toxin”.
- Level 1 Assessment is a study of the water system to identify the potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- Level 2 Assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- PFAS: Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals applied to many industrial, commercial and consumer products to make them waterproof, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of fire fighting foam called aqueous film forming foam (AFFF) which are used mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing.
- 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 ($\mu\text{g}/\text{L}$) are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
- 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.