



## Eastgate Water System

PWS ID: NC0326280

### Annual Water Quality Report 2019

#### Message from Don Denton, President

Dear Carolina Water Service, Inc. of North Carolina Customers,

I am pleased to share your Annual Water Quality Report for 2019. This report is designed to inform you of the quality of water we delivered to you over the past year.

As your community water utility, we fully appreciate our role in the local community and are committed to providing safe, reliable and cost-effective service to you. All of our employees share in this commitment and strive to serve you with integrity and professionalism.

**We are proud to share this report which provides water quality testing results through December 2019. We continually work to supply water that meets or exceeds all federal and state water quality regulations.**

Our dedicated local team of water quality experts is working in the community everyday ensuring that you, our customer, are our top priority and that we are providing high quality service that protects the environment and benefits our communities - now and in the years to come.

Best regards,

Visit us online at [www.carolinawaterservicenc.com](http://www.carolinawaterservicenc.com)

Or Join us on Facebook and Twitter

@CarolinaWaterNC



According to the Centers for Disease Control and Prevention (CDC) and the US Environmental Protection Agency (EPA), the virus that causes COVID-19 has not been detected in drinking water. Conventional water treatment methods that use disinfection, such as those provided by Carolina Water Service, Inc. of North Carolina, should remove or inactivate the virus that causes COVID-19 as they do for other pathogens. Based on current evidence, the risk to water supplies is low. **You can continue to use and drink water from your tap as usual.**

EPA also encourages the public to help keep household plumbing and our nation's water infrastructure operating properly by only flushing toilet paper. **Disinfecting wipes and other items should be disposed of in the trash, not the toilet.** For more information, visit the CDC at <https://www.cdc.gov/coronavirus/2019-ncov/php/water.html> and EPA at <https://www.epa.gov/coronavirus/coronavirus-and-drinking-water-and-wastewater>.

#### Source of Drinking Water

Your water source is purchased from Fayetteville Public Works Commission (PWC) which draws surface water from the Cape Fear River and Glenville Lake.

#### Water Conservation

Please be reminded that our water systems in North Carolina are always in some stage of either voluntary or mandatory water conservation restriction. These restrictions may vary weekly due to drought conditions and are dictated by a system established by the North Carolina Utilities Commission in an order dated May 23, 2008. The customers are encouraged to keep informed of current restrictions by visiting [www.carolinawaterservicenc.com](http://www.carolinawaterservicenc.com) and clicking on the "Community Drought Status" link on the front page or call our customer service at (800) 525-7990.

#### Help Protect our Resources

Help put a stop to the more than **1 trillion gallons of water lost annually** nationwide due to household leaks. These easy to fix leaks waste the average family the amount of water used to fill a backyard swimming pool each year. Plumbing leaks can run up your family's water bill an extra 10 percent or more, but chasing down these water and money wasting culprits is as easy as 1—2—3. Simply check, twist, and replace your way to fewer leaks and more water savings:

- ⇒ **Check** for silent leaks in the toilet with a few drops of food coloring in the tank, and check your sprinkler system for winter damage.
- ⇒ **Twist** faucet valves; tighten pipe connections; and secure your hose to the spigot. For additional savings, twist a WaterSense labeled aerator onto each bathroom faucet to save water without noticing a difference in flow. They can save a household more than 500 gallons each year—equivalent to the amount water used to shower 180 times!
- ⇒ **Replace** old plumbing fixtures and irrigation controllers that are wasting water with WaterSense labeled models that are independently certified to use 20 percent less water and perform well.

For more information visit [www.epa.gov/watersense](http://www.epa.gov/watersense).

***We ask that all our customers help us protect our water sources which are the heart of our community, our way of life and our children's future.***

***Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.***

## EPA Wants You To Know

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 stormwater 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 stormwater 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 stormwater runoff, and septic systems.
- E. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

### **What measures are in place to ensure water is safe to drink?**

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. The Food and Drug Administration (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 (800-426-4791).

### **Special notice from EPA for the elderly, infants, cancer patients and people with HIV/AIDS or other immune system problems**

**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 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).**

### **Information Concerning Lead in Water**

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. Carolina Water Service, Inc. of North Carolina 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 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

Water that remains stationary within your home plumbing for extended periods of time can leach lead out of pipes joined with lead-containing solder as well as brass fixtures or galvanized pipes. Flushing fixtures has been found to be an effective means of reducing lead levels. The flushing process could take from 30 seconds to 2 minutes or longer until it becomes cold or reaches a steady temperature. Faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. Consumers should be aware of this when choosing fixtures and take appropriate precautions. Visit the NSF Web site at [www.nsf.org](http://www.nsf.org) to learn more about lead-containing plumbing fixtures.

### **Drain Disposal Information**

Sewer overflows and backups can cause health hazards, damage home interiors, and threaten the environment. A common cause is sewer pipes blocked by grease, which gets into the sewer from household drains. Grease sticks to the insides of pipes. Over time, the grease can build up and block the entire pipe. Help solve the grease problem by keeping this material out of the sewer system in the first place:

- Never pour grease down sink drains or into toilets. Scrape grease into a can or trash.
- Put strainers in sink drains to catch food scraps / solids for disposal.

### **Prescription Medication and Hazardous Waste**

Household products such as paints, cleaners, oils, and pesticides, are considered to be household hazardous waste. Prescription and over-the-counter drugs poured down the sink or flushed down the toilet can pass through the wastewater treatment system and enter rivers and lakes (or leach into the ground and seep into groundwater in a septic system). Follow the directions for proper disposal procedures. **Do not flush hazardous waste or prescription and over-the-counter drugs down the toilet or drain.** They may flow downstream to serve as sources for community drinking water supplies. Many communities offer a variety of options for conveniently and safely managing these items. For more information, visit the EPA website at: [www.epa.gov/hw/household-hazardous-waste-hhw](http://www.epa.gov/hw/household-hazardous-waste-hhw).

**The Safe Drinking Water Act** was passed in 1974 due to congressional concerns about organic chemical contaminants in drinking water and the inefficient manner by which states supervised and monitored drinking water supplies. Congress' aim was to assure that all citizens served by public water systems would be provided high quality water. As a result, the EPA set enforceable standards for health-related drinking water contaminants. The Act also established programs to protect underground sources of drinking water from contamination.

**Understanding This Report** In order to help you understand this report, we want you to understand a few terms and abbreviations that are contained in it.

Action level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
EPA	Environmental Protection Agency.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.
Maximum Contaminant Level Goal (MCLG)	The "goal" is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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 a 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.
Not applicable (N/A)	Not applicable.
Not Detected (ND)	This means not detected and indicates that the substance was not found by laboratory analysis.
Parts per million (ppm) or Milligrams per liter (mg/l)	One part per million corresponds to one minute in two years or a single penny in \$10,000.
Parts per billion (ppb) or Micrograms per liter (ug/l)	One part per billion corresponds to one minute in 2,000 years or a single penny in \$10,000,000.
Picocuries per liter (pCi/L)	A measure of radioactivity in the water.
Locational Running Annual Average (LRAA)	The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters under the Stage 2 Disinfectants and Disinfection Byproducts Rule
Running Annual Average (RAA)	Calculated running annual average of all contaminant levels detected.
Treatment Technique (TT)	A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**Source Water Assessment Program (SWAP)**

The North Carolina Department of Environmental Quality (DEQ), Public Water Supply (PWS) Section, Source Water Assessment Program (SWAP) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for Fayetteville Public Works Commission (FPWC) was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area.). The assessment findings are summarized in the table below:

**Susceptibility of Sources to Potential Contaminant Sources (PCSs)**

Source Name	Susceptibility Rating	SWAP Report Date
PWC-Cape Fear River	Higher	08/31/2017
PWC-Glenville Lake	Moderate	08/31/2017

The complete SWAP Assessment report for Fayetteville Public Works Commission (FPWC) may be viewed on the Web at: [www.ncwater.org/?page=600](http://www.ncwater.org/?page=600). Note that because SWAP results and reports are periodically updated by the PWS Section, the results available on this web site may differ from the results that were available at the time this CCR was prepared. If you are unable to access your

SWAP report on the web, you may mail a written request for a printed copy to:

Source Water Assessment Program – Report Request, 1634 Mail Service Center, Raleigh, NC 27699-1634, or email requests to [swap@ncdenr.gov](mailto:swap@ncdenr.gov). Please indicate your system name, number, and provide your name, mailing address and phone number. If you have any questions about the SWAP report please contact the Source Water Assessment staff by phone at 919-707-9098

It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the system's potential to become contaminated by PCSs in the assessment area.

**Monitoring Your Water**

We routinely monitor for over 150 contaminants in your drinking water according to Federal and State laws. The tables below list all the drinking water contaminants that we detected in the last round of sampling for each particular contaminant group. The presence of contaminants does not necessarily indicate that water poses a health risk. **Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2019.** The EPA and the State allow us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

**If You Have Questions Or Want To Get Involved**

Carolina Water Service, Inc. of North Carolina does not hold regular public meetings. If you have any questions about this report or concerning your water, or would like a company representative to attend an upcoming homeowners association meeting, please contact Customer Service at 1-800-525-7990.

## Water Quality Test Results - (Carolina Water Service, Inc. of North Carolina)

### Disinfectant Residuals Summary

Disinfectant (units)	Year Sampled	MRDL Violation Y/N	Your Water (highest RAA)	Range Low High	MRLG	MRDL	Likely Source of Contamination
Chloramines (ppm)	2019	N	1.7	1.6 - 1.8	4	4.0	Water additive used to control microbes
Chlorine (ppm)	2019	N	1.8	1.7- 1.8	4	4.0	Water additive used to control microbes

### Stage 2 Disinfection Byproducts Contaminants *Based upon Locational Running Annual Average (LRAA)*

Disinfection Byproduct (units)	Year Sampled	MCL Violation Y/N	Your Water (highest LRAA)	Range Low High	MCLG	MCL	Likely Source of Contamination
TTHM (ppb) [Total Trihalomethanes]	2019	N	43.75	23 - 55	N/A	80	Byproduct of drinking water disinfection
HAA5 (ppb) [Total Haloacetic Acids]	2019	N	26.2	0 - 24	N/A	60	Byproduct of drinking water disinfection

### PFAS Testing

Carolina Water Service, Inc. of North Carolina is currently conducting statewide drinking water testing for Per- and Polyfluoroalkyl Substances (PFAS). These man-made compounds are used in the manufacturing of products resistant to water, grease or stains including firefighting foams, cleaners, cosmetics, paints, adhesives and insecticides. PFAS can migrate into the soil, water, and air and is likely present in the blood of humans and animals all over the world. The Environmental Protection Agency (EPA) has established a health advisory level at 70 parts per trillion. For more information visit <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>. Notification has or will be sent to all registered customers of the testing results once completed. Carolina Water Service, Inc. of North Carolina is committed to providing safe, reliable, and cost-effective drinking water services to all of our customers.

**Violations:** In 2019, Carolina Water Service, Inc. of North Carolina performed all required monitoring for contaminants. In addition, **no violations** from the North Carolina Department of Environmental Quality were received and we were in compliance with applicable testing and reporting requirements.

*To access your utility account anytime, anywhere, please register for our customer portal & download MyUtilityConnect at <https://connect.myutility.us/connect/>*

## 2019 Fayetteville Public Works Commission (PWC)

### Filtered Water Quality Data (Regulated)

Parameters	Unit	MCL	MCLG	MCL Violation Y/N	Your Water Level	Range of Detected Levels Low - High	Date Most Recent Testing Completed	Source
Fluoride	ppm	4	4	N	0.779	0.41 - 1.23	12/19	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum deposits

### Radiological Contaminants

Parameters	Unit	MCL	MCLG	MCL Violation Y/N	Your Water Level	Range of Detected Levels	Date Most Recent Testing Completed (a)	Source
Gross Alpha	pCi/L	15	0	N	3.40	N/A	11/16	Erosion of natural deposits
Gross Beta	pCi/L	50*	0	N	4.60	N/A	11/16	Decay of natural and man-made deposits

*\*Note: The MCL for beta/photon emitters is 4mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.*

### 2019 Turbidity

Contaminant (units)	MCL	Your Water	Average	Range	MCGL Violation	Likely Source of Contamination
Turbidity (NTU)	95% of samples <0.30	100% <0.3 NTU	0.05	0.03 - 0.11	N	Soil runoff

Turbidity is a measure of the cloudiness of the water. PWC monitors it because it is a good indicator of the effectiveness of the filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU. NTU - Nephelometric Turbidity Unit: A measure of water clarity. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Cryptosporidium:** PWC monitored for Cryptosporidium in Glenville Lake during 2018. The highest concentration was 0.09 oocysts/liter in April 2018. In 2017, the highest concentration found in the Cape Fear River was 0.09 oocysts/liter in April 2017. Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

## Filtered Water Quality Data (Non-Regulated)

Parameters	Unit	Your Water Detected Levels	SDWR	MCLG*	Source
Alkalinity	ug/L	20.7	NS	NS	Erosion of natural deposits, water treatment processes
Hardness	ug/L	25.5	NS	NS	Presence of mineral deposits most commonly calcium and magnesium
Iron	ug/L	<0.20	0.3	NS	Erosion of natural deposits
Manganese	ug/L	<0.01	0.05	NS	Erosion of natural deposits
pH	pH units	7.9	7.0 – 8.65	NS	Measurement of acid or base neutralizing capacities of water
Sodium	ug/L	15.2	NS	NS	Erosion of natural deposits, chemical use in water treatment
Sulfate	ug/L	56	250	NS	Erosion of natural deposits, decay or organic matter

\*NS=No Standard

## VOC Contaminants (Non-Regulated)\*

Parameters	Unit	Your Water Detected Levels	Range of Detected Levels Low - High	Sample Date
Chloroform	ug/L	18.8	10.09 - 18.18	11/2019
Bromodichloromethane	ug/L	20.80	14.78 - 20.80	11/2019
Bromoform	ug/L	32.47	ND - 32.47	11/2019
Chlorodibromomethane	ug/L	15.22	3.00 - 15.22	11/2019

\*These compounds are associated with chlorine disinfection.

## DISINFECTION BY- PRODUCTS PRECURSORS CONTAMINANTS

Contaminant (Units)	Sample Date	MCL/TT Violation	Your Water	Range Low - High	MCLG	MCL	Compliance Method	Likely Source of Contamination
Total Organic Carbon (ppm) (TOC)-RAW	Monthly	Y (TT)*	5.62	4.6 - 8.7	N/A	TT	N/A	Naturally present in the environment.
Total Organic Carbon (ppm) (TOC)-TREATED	Monthly	Y (TT)*	1.73	1.2 - 2.2	N/A	TT	Alt 4 (SUVA $\leq$ 2.0 L/mg-min)	Naturally present in the environment.

**\*PWC is required to monitor the drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During the compliance periods specified in the table below, PWC did not monitor or test for total organic carbon (TOC) and therefore cannot be sure of the quality of your drinking water and the system's precursor removal performance during that time. Note: The Disinfection Byproducts Rule provides a treatment technique requirement that addresses the reduction of precursor material (TOC) within the water treatment facility and ultimately reduces the level of total trihalomethanes and haloacetic acids in the distribution system.**

CONTAMINANT GROUP*	ENTRY POINT/ LOCATION CODE	COMPLIANCE PERIOD BEGIN DATE	SAMPLING FREQUENCY	WHEN SAMPLES WERE TAKEN
TOC (Source Water)	SO2	4/1/2019 - 4/30/2019	Monthly	5/7/2019, 5/21/2019
TOC (Treated Water)	POE2	4/1/2019 - 4/30/2019	Monthly	5/7/2019, 5/21/2019

\*Source water samples must be tested for Total Organic Carbon (TOC) and Alkalinity. Treated water samples must be tested for TOC. Source water samples and treated water samples must be collected on the same day.

**What should I do?** There is nothing you need to do at this time.

**What happened? What is being done? When will the problem be resolved?**

PWC is required to collect one Alkalinity and one Total Organic Carbon (TOC) sample each month as part of the disinfection byproduct monitoring/reduction program. This is just one of many tools used to control the levels of Trihalomethane and Trihaloacetic Acid. The Glenville Lake Water Treatment Facility (WTF) was off line for structural improvements from Jan 28<sup>th</sup> – April 28<sup>th</sup>. When PWC restarted the Glenville Lake WTF on April 29, 2019 they failed to collect TOC samples before the end of April 2019. PWC did collect Alkalinity samples for the two days they were in operation in April. In addition, on May 5, 2019, PWC collected Trihalomethane and Trihaloacetic Acid samples at the Glenville Lake WTF, as well as out in the distribution system. All samples collected were well below the U.S. EPA maximum contaminant level (MCL).

**Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.**

**Unregulated Contaminants** are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist the EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulations are warranted. Although the EPA has not set a Maximum Contaminant Level for 1,4-dioxane, they have issued an advisory lifetime health goal of less than 35 ug/L for drinking water.

Parameters	Date Sampled	Unit	Your Water Highest Average	Range Low High	Sample Collection Point
1,4-Dioxane	2019	ug/L	1.323	0.30 - 3.50	P.O. Hoffer WTF Point of Entry

PWC meets or surpasses all the standard requirements annually. While 1,4-Dioxane has been detected in the Cape Fear River as well as other areas in our region, state and nation, the Environmental Protection Agency (EPA) currently has no standards for 1,4-Dioxane and has not yet issued regulated safe limits. If the EPA believed 1,4 Dioxane was an immediate threat, a directive would have been issued. Since 1,4-Dioxane cannot be removed through our traditional water treatment process, PWC has partnered with other communities to research and identify its sources to reduce or eliminate it so there will be no long-term exposure to the customers. You can find additional information on our website: [www.faypwc.com/the-facts-about-1-4-dioxane/](http://www.faypwc.com/the-facts-about-1-4-dioxane/)

**Unregulated Contaminant Monitoring Rule (UCMR4)** For more information on the Unregulated Contaminant Monitoring Rule and what EPA does with this information, visit [www.epa.gov/dwucmr](http://www.epa.gov/dwucmr).

Contaminant (unit)	Date Sampled	Your Water Average	Range Low High
HAA5, ug/L	2018	26.79	12.03 - 45.19
HAA6Br, ug/L	2018	19.14	3.92 - 32.61
HAA9, ug/L	2018	43.29	17.92 - 63.40
Manganese, ug/L	2018	4.80	0.936 - 23
Quinoline, ug/L	2018	0.02	ND - 0.0533
Bromide, ug/L	2018	48.4	ND - 144
Total Organic Carbon (TOC), ug/L	2018	4298.75	1420 - 8690

-HAA5 includes: dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid.

-HAA6Br includes: bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, tribromoacetic acid.

-HAA9 includes: bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, trichloroacetic acid.

### Per- and polyfluoroalkyl substances (PFAS) (PFOA + PFOS Information)

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that have been in use since the 1940s, and are (or have been) found in many consumer products like cookware, food packaging, and stain repellants. PFAS manufacturing and processing facilities, airports, and military installations that use firefighting foams are some of the main sources of PFAS. PFAS may be released into the air, soil, and water, including sources of drinking water. Perfluorooctanesulfonic acid (PFOA) and Perfluorooctanoic acid (PFOS) are the most studied PFAS chemicals and have been voluntarily phased out by industry, though they are still persistent in the environment.

Recent testing has detected PFOA and PFOS in Fayetteville's drinking water. While perfluorinated chemicals have been detected, the water is below the EPA's *health advisory level* for the combination of PFOS and PFOA of 70 parts per trillion (ppt). The table below shows monitoring results for combined PFOS and PFOA at PWC's water treatment Point of Entry (POE). POE refers to water that has undergone all treatment steps at the water treatment facilities, and is ready to be pumped to you, our customer.

EPA issues *health advisories*, which are based on the best available peer-reviewed studies about the health effects of the unregulated chemicals. *Health advisories* provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. EPA's *health advisories* are non-enforceable and non-regulatory and provide technical information to states agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water.

Fayetteville PWC is working to stay ahead of the science, as these substances continue to be measured at ever smaller concentrations. With modern laboratory methods, these substances can now be measured down to parts per trillion (ppt) concentrations. For comparison, 1 part per trillion is approximately the equivalent of one drop of water in 10 million gallons of water.

*The table below shows the total concentration of the 42 PFAS unregulated compounds for which PWC monitors quarterly, as well as the total concentration of the combination of PFOS and PFOA, which although unregulated, does have an EPA Health Advisory level of 70 ppt.*

Sample Location	Sample Date	Total PFAS	PFOA + PFOS	EPA Health Advisory Level PFOA + PFOS	EPA Health Advisory Exceeded
P.O. Hoffer WTP, Point of Entry	7/2019	128.46 ppt	28.77 ppt	70 ppt	No
	10/2019	231.71 ppt	31.40 ppt		
Glenville Lake WTP, Point of Entry	7/2019	104.25 ppt	37.94 ppt		
	10/2019	83.27 ppt	37.52 ppt		

