

CENTRAL SYSTEM



**DRINKING
WATER
QUALITY**

ANNUAL REPORT
FOR THE YEAR ENDING 2019



INTRODUCTION

Loudoun Water is pleased to present your drinking water quality annual report. The information contained in this report is based on data collected and reported to Virginia Department of Health in 2019, unless otherwise noted.

Annual dissemination of this report is required under the federal Safe Drinking Water Act (SDWA). Established to safeguard the quality of drinking water across the United States, the SDWA establishes contaminant level limits in drinking water. These limits are represented in this report as MCLs, or Maximum Contaminant Levels. A glossary of helpful definitions is listed on the following page.

Based on rigorous sampling, the data tables prepared for this report provide important information about the quality of your drinking water throughout the year. On page 12, Table One shows the quality of the water as it flows within the Loudoun Water distribution system; and on page 13 and Table Two shows the quality of the water as it leaves the treatment plants that supply our water.

If you have a question or concern that is not addressed in this report, please contact us at 571-291-7880. Our staff is available to assist you Monday through Friday between 8:00 a.m. and 5:00 p.m. You may also contact us at any time to obtain the latest drinking water quality data. Previous drinking water quality reports and additional water quality information can be found at www.loudounwater.org.

We also invite you to attend our monthly Loudoun Water Board Meetings, which are usually held on the second Thursday of each month in the Boardroom of our Dale C. Hammes Administration Building, located at 44865 Loudoun Water Way, Ashburn, VA 20147. To learn more about Loudoun Water's Board of Directors, please visit www.loudounwater.org/about.



@loudounwater



HELPFUL DEFINITIONS

ACTION LEVEL: The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement that a water system must follow.

MAXIMUM CONTAMINANT LEVEL (MCL): The highest level of a contaminant that EPA allows in drinking water. MCLs are set as close to the MCLGs as possible using the best available treatment technology.

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 RESIDUAL DISINFECTANT LEVEL (MRDL): The maximum permissible level of disinfectant residual in drinking water, based on a running annual average.

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.

MREMS/YEAR: Millirems per year. A measurement of radiation absorbed by the body.

N/A: Not applicable.

ND: Non-detect. Concentration levels so low they were not detectable.

NINETIETH (90TH) PERCENTILE: Represents the highest value found out of 90 percent of the samples taken in a representative group. If the 90th percentile is greater than the action level, it will trigger a treatment or other requirement that a water system must follow.

NTU: Nephelometric Turbidity Unit.

PCi/L: Picocuries per liter.

PPB: Parts per billion. One ppb is equal to one microgram per liter. (ug/L)

PPM: Parts per million. One ppm is equal to one milligram per liter. (mg/L)

TOTAL COLIFORM: Bacteria that indicate whether other potentially harmful bacteria may be present.

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



CENTRAL SYSTEM LETTER FROM THE GENERAL MANAGER

Thank you for taking the time to review your Annual Drinking Water Quality Report. Each year we publish this report to inform our customers about the clean, high-quality drinking water that they receive. I am pleased to report that the drinking water provided by Loudoun Water either met or exceeded standards set by the EPA and administered by the Virginia Department of Health.

In May 2019, Loudoun Water hosted a Ribbon Cutting Ceremony at our new Trap Rock Water Treatment Facility, which coincided with events related to Loudoun Water's 60th Anniversary. Final completion and successful operations of Trap Rock met all regulatory criteria. Customers in our central system are now receiving water fully treated from our new facility. I am also happy to report that the Trap Rock Water Treatment Facility was awarded LEED Gold Certification.

I believe this report reflects well on the dedication of more than 300 employees who work to serve our customers 24/7. In 2019, the Loudoun Water Laboratory analyzed more than 37,500 tests to ensure that our customers are receiving the highest quality of water.

If you have any questions about this report or your drinking water quality, I encourage you to contact our customer relations team at 571-291-7880 or via email at customerservice@loudounwater.org. Our staff are eager to answer any questions you may have.

Sincerely,

Carla P. Burleson
General Manager



CENTRAL SYSTEM LETTER FROM THE GENERAL MANAGER

In 2019, Loudoun Water developed its 2020-2024 Strategic Plan. This plan sets the course for Loudoun Water's future over the next five years. This collaborative process resulted in the adoption of a new mission statement for our organization:

Loudoun Water works to ensure a healthy environment and high quality of life through effective and sustainable management of resources entrusted to our care.

It is important to everyone at Loudoun Water that our customers feel confident drinking their tap water. Our staff members take great care in their roles and understand the importance of the services that they are providing our customers and community. Having clean, safe water to drink while sustainably managing resources is our top priority.

I hope that you will take the time to read through and review this information. If you ever have any questions about your drinking water, water quality or services provided by Loudoun Water, please contact our offices. We want you to have confidence in your tap water and are happy to discuss your questions or concerns.

I also encourage you to attend our monthly Loudoun Water Board Meetings, which are usually held on the second Thursday of each month in the Boardroom of our Dale C. Hammes Administration Building in Ashburn. You can learn about upcoming and current projects as well as hear about the status of our water resources. I hope to see you there.

Sincerely,

Shaun V. Kelley
Chairman,
Loudoun Water Board of Directors





ABOUT LOUDOUN WATER

Our mission is to work to ensure a healthy environment and high quality of life through effective and sustainable management of resources entrusted to our care.

To do this, Loudoun Water maintains over **1,483 miles** of water distribution pipelines, over **1,234 miles** of wastewater collection system pipelines and a growing reclaimed non-potable water system.

Loudoun Water is a political subdivision of the State and is not a department of Loudoun County. This means all Loudoun Water income is received either as user fees from customers, which go towards operating expenses or as developer fees which are used to pay for capital improvements.

Loudoun Water is governed by a Board consisting of nine members appointed by the Board of Supervisors. The Board members serve four year terms and can be reappointed by the County. The Board appoints

the General Manager, who is responsible for the daily management of Loudoun Water.

Loudoun County is a rapidly growing jurisdiction located in the northern tip of the Commonwealth of Virginia approximately 25 miles northwest of Washington, D.C. Loudoun County contains 517 square miles, making it one of the largest counties in the region. It has been one of the fastest growing counties in the country over the past decade. The County is expected to continue to have one of the highest population and employment growth rates in the entire Washington region over the next 20 years. Loudoun Water continues to plan for this growth, which is outlined in our Capital Improvement Plan.





SOURCE WATER ASSESSMENT

Since the Loudoun Water system has two sources of water (Potomac River and Goose Creek), two source water assessment reports have been conducted by the Virginia Department of Health. These reports consist of maps showing the source water assessment areas, an inventory of known land-use activities of concern and documentation of any known contamination. Based on state criteria, both sources are considered to be highly susceptible to contamination. Additional information about these reports can be obtained by contacting us at 571-291-7880.

YOUR WATER SOURCES

Your drinking water comes from the Potomac River and as needed Goose Creek. The Potomac River is augmented by reservoirs in Maryland, Virginia, and West Virginia through a shared supply agreement with neighboring water providers. Goose Creek receives water from Beaverdam Reservoir and Goose Creek Reservoir. Beaverdam Reservoir fills Goose Creek Reservoir when water levels get low and vice versa. Your drinking water from the Potomac River was fully treated by Loudoun Water and by our wholesaler, Fairfax Water. Drinking water from Goose Creek can be fully treated by Loudoun Water if supplemental drinking water is required.

WHAT IS IN YOUR WATER?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about

contaminants and potential health effects can be obtained by calling the Environmental Protection Agency (EPA) Safe Drinking Water Hotline at 800-426-4791.

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 radioactive material and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in the water include:

- **Microbes** (viruses or bacteria) from septic systems, agricultural livestock operations, wildlife and wastewater treatment plants.
- **Inorganics**, such as salts and metals, which can occur naturally or result from storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.
- **Pesticides and herbicides** from agriculture, urban runoff and residential uses.
- **Organics**, like 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.
- **Radioactive contaminants**, either naturally occurring or the result of oil and gas production or mining activities.



WHAT DO WE TEST FOR?

The Safe Drinking Water Act of 1974 (SDWA), which has been amended most significantly in 1986 and 1996, governs drinking water quality. It sets the limits for contaminants in drinking water. These limits are represented in this report as MCLs, or the Maximum Contaminant Levels. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, which must provide the same protection for public health as tap water.

Under the SDWA, Loudoun Water is required to test for the presence of a number of organisms and chemicals. We submit the results to the Virginia Department of Health.

- **Bacteriological analysis** is routinely performed. It is reported based on the presence or absence of total and *Escherichia coliform* (*E. coli*). Their presence indicates potential health risks for individuals exposed to this water. Loudoun Water tests for coliform bacteria at a minimum of 150 locations monthly.

- **Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5)** analysis is a quarterly monitoring requirement. Both of these form in the water supply as chlorine reacts with organic matter. When ingested in large quantities, these chemicals are suspected human carcinogens, so we monitor for them closely. The legal limit for TTHMs is a specific location running annual average of 80 parts per billion (ppb). For HAA5, the limit is a specific location running annual average of 60 ppb. Loudoun Water tests for TTHMs and HAA5 at twelve locations throughout the distribution system.
- **Corrosion control parameters** (orthophosphate and pH) are a semiannual monitoring requirement. By dosing the drinking water with a minimum of 0.90 ppm orthophosphate and maintaining a minimum pH of 7.0 the potential for corrosion of lead, copper and other metals is greatly reduced. Loudoun Water monitors for these corrosion parameters at multiple locations throughout the distribution system.





LEAD IN DRINKING WATER

WHAT IS THE EPA STANDARD FOR LEAD IN DRINKING WATER?

EPA has established an Action Level for lead in water of 15 parts per billion (ppb). When lead testing is performed as required by EPA, 90 percent of the samples must contain less than 15 ppb. This is usually referred to as the 90th percentile results being less than 15 ppb. The Action Level was not designed to measure health risks from water represented by individual samples. Rather, it is a statistical trigger value that, if exceeded, may require more treatment, public education, and possibly lead service-line replacement where such lines exist. (Loudoun Water does not have any lead service lines in its system.)

Loudoun Water has been testing for lead and copper in accordance with EPA's Lead and Copper Rule (LCR) since 1992. In 2017, the 90th percentile value for lead was 1.1 ppb compared to the EPA action level of 15 ppb. Currently the Virginia Department of Health requires Loudoun Water to monitor for lead and copper at 50 locations every three years.

WHERE DOES LEAD IN DRINKING WATER COME FROM?

Although some utilities use raw source waters that contain lead, Loudoun Water's sources do not contain lead. In 1986, lead was banned from being used in pipe and solder in home construction. In older homes, where lead is present in pipe and solder connections, it may dissolve into the water after the water sits for long periods of time.

Some household plumbing components may contain a small amount of lead and can contribute to lead concentrations at the tap. Our water supplier Fairfax Water, and Loudoun Water add a corrosion inhibitor to slow this dissolution process.

WHAT CAN I DO IN MY HOME TO REDUCE EXPOSURE TO LEAD IN THE DRINKING 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. Loudoun Water is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components in home construction. 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, or until it becomes cold or reaches a steady temperature before using the water for drinking or cooking. Use only cold water for drinking, cooking and making baby formula.

If you are concerned about lead in your water, you may wish to have your water tested.

Information about lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at www.epa.gov/safewater/lead or by calling the Safe Drinking Water Hotline at 800-426-4791. Some people choose to install filters in their homes. If you choose to use a water filter, follow these three rules:

1. Choose one designed for the specific filtration desired (chlorine, lead, *Cryptosporidium*, etc.).
2. Make sure the filter is approved by the National Sanitation Foundation (www.nsf.org).
3. Maintain the filter as directed.

HOW CAN LOUDOUN WATER ASSIST IN HAVING THE WATER IN MY HOUSE TESTED?

For information on having a lead-level test conducted, call our Customer Relations Department at 571-291-7880.



ARE YOU VULNERABLE TO CONTAMINANTS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer who are 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 and Centers for Disease Control and Prevention guidelines on appropriate means to lessen the risk of infections by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

HOW IS YOUR WATER TREATED?

The treatment process at both Fairfax Water and Loudoun Water includes chemical coagulation, flocculation, sedimentation, filtration and disinfection. Coagulation and flocculation help condition the raw water so that contaminants combine with particulate matter to form floc (large particles), which will settle out in the sedimentation process. Filtration removes the smaller, lighter particles. Disinfection with chlorine is the last step, which kills bacteria, viruses and other microbial contaminants. Sufficient chlorine is added to deter growth of bacteria while water flows through the pipes to your home. Chlorine can

be dangerous to human health at high amounts. EPA sets the safe limit for chlorine in your water at a running annual average of 4 ppm. The chlorine amount is maintained so as to be extremely effective at inactivating bacteria.

Chloramine, a type of chlorine is used as the chlorine disinfectant for both treatment facilities. Chloramines are created by adding ammonia to chlorine. Chloramines break down much slower than free chlorine, minimizing the creation of TTHMs and maximizing the length of time the disinfectant remains in the water. One downside of chloramines is they may cause certain types of gaskets or toilet flappers to deteriorate faster, potentially causing leaks.

Fairfax Water and the Loudoun Water Trap Rock Water Treatment Facility also use ozone as another disinfectant. Ozone reduces the amount of chlorine needed to treat the water, offers additional barriers against water borne pathogens and produces better tasting water. Orthophosphate is also added to the water to help coat the pipes and reduce the ability of the lead to leach out.



WATER QUALITY ANALYSIS AND RESULTS

We constantly monitor for various component in the water supply to meet all regulatory requirements. The following tables list only those component that are regulated and had some level of detection. If you have a question about a component not seen here, call us at 571-291-7880.

TURBIDITY

Turbidity is the clarity of the water. It is measured in Nephelometric Turbidity Units (NTU). Turbidity higher than 5 NTU is just visually noticeable to the average person. Turbidity has no health effects; however, it can interfere with the disinfection process and provide a medium for microbial growth. Turbidity is measured during the treatment process after the water has been filtered, but before disinfection. The turbidity level of filtered water must be less than or equal to 0.3 NTU in at least 95 percent of the measurements taken each month and no single measurement can exceed 1 NTU.

Turbidity	Average Annual Turbidity (NTU)	Highest Single Measurement (NTU)	Lowest % Of Samples Meeting TT Turbidity Limit	MCL	MCLG	Major Source in Drinking Water	Violation
Fairfax Water – Corbalis Water Treatment Plant	0.04	0.24	100%	TT	N/A	Soil Runoff	No
Loudoun Water – Trap Rock Water Treatment Facility	0.04	0.117	100%				No

Your water is tested for a large array of components at locations as it enters into the distribution system. You'll find this data on what was detected in **Table Two**.

Loudoun Water also tests water from within the distribution system for the presence of bacteria, chlorine, total trihalomethanes, haloacetic acids, lead and copper and submits these results to the Virginia Department of Health on a regular basis. This data is found in **Table One**.

The tables on these pages show the results of monitoring for the period of January 1, 2019 to December 31, 2019, unless otherwise noted.



**TABLE ONE: WATER QUALITY IN THE DISTRIBUTION SYSTEM**

Microbial Component	Highest Monthly Result	MCL (Max Allowed)	MCLG (Goal)	Typical Source	Violation
Total Coliform Bacteria	1	TT	N/A	Naturally present in the environment	No
E. coli Bacteria	0	Repeat sample is E. coli positive OR Routine sample is E. coli positive followed by Repeat sample that is Total Coliform positive OR System fails to take all required repeat samples following E. coli positive routine sample OR System fails to analyze for E. coli when any repeat sample tested positive for Total Coliform	0	Human and animal fecal waste	No
Chemical Component	Highest Quarterly System Running Annual Average	MRDL (Max Allowed, Compliance Based on System Running Annual Average)	MRDLG (Goal)	Typical Source	Violation
Total Chlorine (ppm)	3.0	4	4	Water additive used to control microbes	No
	RANGE (individual test results)				
	0.6 - 4.1				
Disinfection Byproducts	Highest Quarterly Locational Running Annual Average	MCL (Locational Running Annual Average)	MCLG (Goal)	Typical Source	Violation
Total Trihalomethanes (ppb)	38	80	N/A	Byproduct of drinking water disinfection	No
	RANGE (individual test results)				
	7.6 - 64				
Haloacetic Acids (ppb)	Highest Quarterly Locational Running Annual Average	60	N/A	Byproduct of drinking water disinfection	No
	29				
	RANGE (individual test results)				
	1.6 - 48				

Metal Components	90th Percentile Level	Action Level	Goal	Number of Sites Above Action Level	Typical Source	Violation
Copper (ppm) ¹	0.11	1.3	1.3	0	Corrosion of household plumbing; erosion of natural deposits	No
Lead (ppb) ¹	1.1	15	0	0	Corrosion of household plumbing; erosion of natural deposits	No

¹ Data from 2017

**TABLE TWO: WATER QUALITY FROM LOUDOUN WATER SUPPLIER (FAIRFAX WATER) AND LOUDOUN WATER**

Components	Average Amount Detected		MCL (Max Allowed)	MCLG (Goal)	Typical Source	Violation
	Range					
	Fairfax Water Corbalis Water Treatment Facility	Loudoun Water Trap Rock Water Treatment Facility				
Beta/photon emitters ¹ (pCi/L)	3.33 ²	1.87	50	0	Decay of natural and man-made deposits	No
	RANGE	RANGE				
	ND – 4.78	1.23 – 2.5				
Radium 226 (pCi/L)	0.145 ²	0.834	5	0	Erosion of natural deposits	No
	RANGE					
	ND – 0.186 ²					
Radium 228 (pCi/L)	NA	0.553	5	0	Erosion of natural deposits	No
Uranium	0.085 ²	NA	30	0	Erosion of natural deposits	No
	RANGE					
	0.083 ² – 0.086 ²					
Fluoride (ppm)	0.7	0.65	4	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	No
	RANGE					
	0.6 – 0.7					
Nitrate [as Nitrogen] (ppm)	1.28	NA	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
	RANGE					
	1.03 – 1.68					
Nitrate-Nitrite [as Nitrogen] (ppm)	NA	1.46	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
		RANGE				
		1.13 – 1.9				
Barium (ppm)	0.041	0.041	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
	RANGE					
	0.028 – 0.049					
Total Organic Carbon ³ (ratio)	1.6	1.0	TT	N/A	Naturally present in the environment	No
	RANGE					
	1.4 – 1.6	1.0 - 1.0				

¹ The MCL for Beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for Beta particles.

² This radioactive contaminant result is above the analysis-specific detection limit but below the minimum detection limits prescribed in the Consumer Confidence Rule as stated in 40 CFR 141.151 (d).

³ Total Organic Carbon (TOC) has no health effects. However, it provides a medium for the formation of disinfection byproducts, including trihalomethanes and haloacetic acids. The maximum contaminant level for TOC is a Treatment Technique (TT), which means there is a required process needed to reduce the level of TOC in the water. The average level reported is a quarterly running average of the monthly ratio of actual TOC removal versus required TOC removal between source and treated waters. This Quarterly Running Annual Average value must be greater than or equal to 1 to be in compliance.



INFORMATION ABOUT THE UNREGULATED CONTAMINANT MONITORING RULE

● What is the Unregulated Contaminant Monitoring Rule (UCMR)?

EPA uses the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act (SDWA).

The current fourth Unregulated Contaminant Monitoring Rule (UCMR 4) requires monitoring for 30 chemical contaminants between 2018 and 2020. This monitoring provides a basis for future regulatory actions to protect public health. For more information on the UCMR4 and the complete list of components tested go to [UCMR 4 Basic Information Fact Sheet \(PDF\)](#).

● What are the public health benefits of the UCMR program?

The UCMR program provides the EPA and other interested parties with nationally representative data on the occurrence of particular contaminants in drinking water, the number of people potentially being exposed and an estimate of the levels of that exposure. EPA will consider the occurrence data from UCMR 4 and other sources, along with the peer reviewed health effects assessments, to support a regulatory determination on whether to initiate the process to develop a national primary drinking water regulation.

UNREGULATED COMPONENTS DETECTED IN THE 2019 UCMR 4 LOUDOUN WATER MONITORING

Distribution System Components (ug/L)	Average	Minimum	Maximum	Use or Environmental Source
Haloacetic Acids 5 (HAA5) ¹	9.3	1	39.0	By-Product of drinking water disinfection
Haloacetic Acids 6 Brominated Group (HAA6Br) ²	7.0	1.4	16.6	By-Product of drinking water disinfection
Haloacetic Acids 9 (HAA9) ³	15.3	2.4	46.6	By-Product of drinking water disinfection

¹ HAA5 includes dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid

² HAA6 includes bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, chlorodibromoacetic acid, monobromoacetic acid, tribromoacetic acid

³ HAA9 includes dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid, bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, tribromoacetic acid

Finished Water Component (ug/L)	Average	Minimum	Maximum	Use or Environmental Source
Manganese	0.76	<0.4	4.2	Naturally-occurring element; commercially available in combination with other elements and minerals; used in steel production, fertilizer, batteries and fireworks; drinking water and wastewater treatment chemical; essential nutrient



INFORMATION ABOUT CRYPTOSPORIDIUM IN THE SOURCE WATERS

The following information reflects data gathered by Fairfax Water and Loudoun Water for the Potomac River.

Cryptosporidium is a microbial pathogen sometimes found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, the most commonly used filtration methods cannot guarantee 100 percent removal. Loudoun Water and Fairfax Water consistently maintain their filtration process in accordance with regulatory guidelines to maximize removal efficiency. The monitoring indicates the occasional presence of these organisms in the source water. Current test methods do not allow us to determine whether 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, immunocompromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor

regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested in order to cause disease. It may be spread through means other than drinking water, such as other people, animals, water, swimming pools, fresh food, soils and any surface that has not been sanitized after exposure to feces.

Fairfax Water has monitored the Potomac River and Loudoun Water is currently monitoring the Potomac River for compliance with Round 2 of the EPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR Round 2). The EPA created this rule to provide for increased protection against microbial pathogens, such as *Cryptosporidium*, in public water systems that use surface water sources. The LT2ESWTR Round 2 monitoring program began in April 2015 and involves the collection of one sample from water treatment plant sources each month for a period of two years. Monitoring for compliance with the LT2ESWTR Round 2 for Fairfax Water continued through March 2017. With the start up of the Loudoun Water Trap Rock Water Treatment Facility in 2018 Loudoun Water is currently in the two year monitoring phase of the Potomac River.

Under the LT2ESWTR Round 2, the average *Cryptosporidium* concentration determines whether additional treatment measures are needed. A *Cryptosporidium* concentration of 0.075 oocysts/Liter triggers additional water treatment measures. Loudoun Water's and Fairfax Water's raw water *Cryptosporidium* concentrations have consistently remained below this threshold.

The averaged results for the source water (prior to treatment) at the Loudoun Water and Fairfax Water Potomac River Intakes are as follows:	<i>Cryptosporidium</i> Concentration (oocysts/Liter)
Potomac River – Loudoun Water - 2019	0.020
Potomac River – Fairfax Water – 2015-2017	ND



EXPLORE LW CONNECT

LW Connect, Loudoun Water's interactive customer system lets you conveniently access your Loudoun Water account information online.

- Log into your account so you can monitor your water use 24/7
- Sign up for eBilling Text Alerts for text reminders and alerts
- Go paperless! Enroll in eBilling and your bill will be emailed to you

Not an LW Connect user yet? Register online at www.lwconnect.org to get started!



VISIT US!

Partnering with area organizations, schools, community members and customers allows Loudoun Water staff to share their knowledge about water and wastewater treatment, conservation, wetlands and more.

Located inside of our Dale C. Hammes Administration Building in Ashburn is an interactive educational center with over 3,500 square feet of indoor exhibits and nearly one mile of outdoor trails. Come explore "The Aquary" on your own or let Loudoun Water guide you. In 2019 Loudoun Water hosted more than 5,000 area students at our Aquary. School groups, community organizations, scouting groups and HOAs are all welcome to schedule a tour. Call us at 571-291-7880 for more information or visit our website at www.loudounwater.org.





TAP WATER FOR YOUR FISH TANKS

Customers will need to treat tap water before using it in a fish aquarium because drinking water contains free chlorine and chloramines to inhibit bacterial growth. These disinfectants can harm fish. Check with a local pet store to learn what types of chemicals you need to add to the tank to neutralize the effects of the disinfectants.

GET INVOLVED WITH SOURCE WATER PROTECTION

Source water is untreated water from lakes, rivers, streams, ponds, reservoirs, aquifers, and springs that serve as a community's water source. Protecting these water sources is an easy way to prevent drinking water from becoming polluted by managing possible sources of contamination.

HOW DOES SOURCE WATER PROTECTION BENEFIT ME?

- Public health protection. Reduced threats to public health due to acute or chronic illness from exposure to contaminated water.
- Economic benefits. Minimizes cost for water treatment, emergency replacement water and finding new supplies.
- Environmental stewardship. Protection of rural lands, wildlife habitats, recreational areas and water quality of streams and wetlands.

HOW YOU CAN HELP PROTECT SOURCE WATER:

- Always pick up after your pet.
- Refrain from swimming in known drinking water sources.
- Never dump anything in creeks or lakes.
- If you like boating, only participate in passive boating such as rowing, canoeing or kayaking instead of motorized boating.
- Compost yard waste and use natural fertilizers.
- Plant trees along creeks.
- Check and repair vehicle fluid levels.
- Properly dispose of household cleaning products, paint, fertilizers, pesticides and expired/unused medications.

OPTIMIZE YOUR WATER USE

The U.S. Environmental Protection Agency's WaterSense. program helps identify a range of certified products that help you use water more wisely as well as save money on your bill. Visit the WaterSense website at www.epa.gov/watersense to learn more about what you can do to make every drop count. Looking for other ways to save? Visit our website at www.loudounwater.org for some creative ways to optimize your water use in the bathroom, kitchen, laundry room and more!



FOR CUSTOMERS WITH POOLS OR IRRIGATION SYSTEMS

The Loudoun Water Cross-Connection Backflow Program is responsible for protecting the water distribution system from potential hazards caused by cross-connections of non-potable water systems.

Backflow prevention protects both the customer's drinking water pipes in their home as well as the water mains in the streets. Otherwise, if a drop in pressure occurs, any connection to a non-potable source could be siphoned back into the customer's home or Loudoun Water's service line, which is dangerous. The only way to prevent such incidents from occurring and to maintain safe drinking water is to use a backflow prevention device that is correctly installed and maintained properly.

For more information, please contact our Customer Relations department at 571-291-7880 or visit our website at www.loudounwater.org.

Loudoun Water is committed to ensuring tap water is safe to drink, which according to Federal and State regulations, requires backflow preventers be tested annually by a certified tester to make sure it is adequately working.

OUTDOOR WATER USE IN THE SUMMER

Loudoun Water recommends wise watering at home. This includes checking your sprinkler settings to avoid overwatering. **For most lawns, 15 minutes of watering is all it takes to maintain a healthy yard.** Too much watering does not help roots grow, promotes mold and wastes water. Excessive watering can also result in a much higher bill.

Loudoun Water recommends the watering schedule below to promote healthy plants and turf. The best time to water your yard is between 6:00 a.m. and 11:00 a.m. to avoid excess evaporation. This watering schedule also spreads out the water demand on our system.

Even Number
Home Addresses

Thur. & Sun.

Odd Number
Home Addresses

Wed. & Sat.



Customer Relations
571-291-7880

Administration
571-291-7700

After-Hours Emergencies
571-291-7878

Have a question about this report?
www.loudounwater.org/contactus

Miss Utility / VA 811
www.va811.com
Dial 811 in Virginia or 1-800-552-7001



www.loudounwater.org
44865 Loudoun Water Way
PO Box 4000
Ashburn, VA 20146

