

Central System

Drinking  
**WATER**  
Quality

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**Annual Report**

FOR THE YEAR ENDING 2017

# 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 2017, 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 14, Table One shows the quality of the water as it flows within the Loudoun Water distribution system; and on page 15, Table Two shows the quality of the water as it leaves the two treatment plants that supply our water, and Table Three, on page 16, reflects the quality of the water specific to ozonation treatment.

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](http://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 Administrative Services Facility, 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](http://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.



## DEAR LOUDOUN WATER CUSTOMER,

As Loudoun County continues to grow at a rapid pace, Loudoun Water remains committed to providing clean, safe drinking water to all our customers, new and old alike. Water is essential for public health, fire protection, agriculture, economic development and the overall quality of life, which is why our staff take our role in the community so seriously.

I have the privilege of being able to work with and oversee the dedicated staff at Loudoun Water. While day-to-day job responsibilities vary greatly, all Loudoun Water employees share the common goal of providing reliable and dependable water and wastewater services while sustainably managing water resources in advocacy of health, environment and quality of life.

This water quality report serves as a good report card for all of our staff's efforts and provides a good overview of your water quality and the testing results from 2017. If you ever have any questions, comments or concerns about your water quality, please contact our customer relations team at 571-291-7880 or via email at

[customerservice@loudounwater.org](mailto:customerservice@loudounwater.org).

Sincerely,

A handwritten signature in black ink that reads "Carla P. Burleson".

Carla Burleson  
General Manager





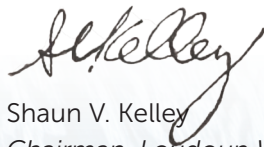
## DEAR LOUDOUN WATER CUSTOMER,

It can be easy to take our access to reliable and safe drinking water for granted. So many of us will turn on the faucet and fill up a glass without giving it a second thought of where the water came from, how it was treated or how it travelled all the way to our home. Truth be told, it takes a lot of coordination from individuals both inside and outside of the organization to make everything run as smoothly as possible.

In the past year, Loudoun Water has welcomed hundreds of area students to visit our headquarters and learn more about how their drinking water and wastewater is treated. Staff had the pleasure of viewing numerous projects from elementary, middle and high school students that were developed after touring our interactive exhibit, The Aquuary. It is energizing to see students so young be so involved and interested in the efforts it takes to treat drinking water.

I encourage you to be inspired by the motivation of these students in your community and take a moment to read through this report so that you too can have a better understanding of how your water is treated.

Sincerely,

A handwritten signature in black ink that reads "S. Kelley". The signature is fluid and cursive.

Shaun V. Kelley  
*Chairman, Loudoun Water Board of Directors*

# ABOUT LOUDOUN WATER

It is Loudoun Water's mission to sustainably manage water resources in advocacy of health, environment and quality of life. We pledge to bring our customers clean, healthy water that is safe to drink.

To do this, Loudoun Water maintains over 1,250 miles of water distribution pipelines, over 900 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 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 our wholesaler, Fairfax Water, and your drinking water from Goose Creek was fully treated by Loudoun Water.

## 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. 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 can 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 eight 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 6.5 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](http://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](http://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.





# INFORMATION ABOUT *CRYPTOSPORIDIUM* IN THE SOURCE WATERS

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

*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, 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 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 monitored the Potomac River and Loudoun Water monitored Goose Creek Reservoir 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 involved 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 continued through March 2017. 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 consistently remain below this threshold. Upon completion of the LT2ESWTR monitoring in 2017 it was determined that no additional treatment is required for either system.

The most current annual results for the source waters are as follows:

Source (Before Treatment)	Annual Average <i>Cryptosporidium</i> Concentration (oocysts/Liter)
Potomac River	0.000
Goose Creek Reservoir	0.015

# 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 also uses 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	0.25	100%	TT	N/A	Soil Runoff	No
Loudoun Water – Goose Creek Water Treatment Facility	0.03	0.089	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 and Table Three. Table Two depicts components that both Loudoun and Fairfax Water (Loudoun Water Supplier) are required to test for, where Table Three depicts components that are uniquely required for Fairfax Water's ozonation disinfection process.

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, 2017 to December 31, 2017, unless otherwise noted.

**TABLE ONE: Water Quality in the Distribution System**

Microbial Component	Highest Monthly % of Positive Samples	MCL (Max Allowed)	MCLG (Goal)	Typical Source	Violation
Total Coliform Bacteria	0	TT	N/A	Naturally present in the environment	No
<i>E. coli</i> Bacteria	0	Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .	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)	3.00	4	4	Water additive used to control microbes	No
	RANGE (INDIVIDUAL TEST RESULTS)				
	0.2 – 4.3				
Disinfection Byproducts	Highest Quarterly Locational Running Annual Average	MCL (Locational Running Annual Average)	MCLG (Goal)	Typical Source	Violation
Total Trihalomethanes (ppb)	60	80	N/A	Byproduct of drinking water disinfection	No
	RANGE (INDIVIDUAL TEST RESULTS)				
	8.7 – 102				
Haloacetic Acids (ppb)	Highest Quarterly Locational Running Annual Average	60	N/A	Byproduct of drinking water disinfection	No
	47				
	RANGE (INDIVIDUAL TEST RESULTS)				
	3.55 – 93.8				

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



**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					
	Loudoun Water Goose Creek Water Treatment Facility	Fairfax Water Corbalis Water Treatment Plant				
Atrazine (ppb)	0.05	ND	3	3	Runoff from herbicide used on row crops	No
	RANGE					
	ND – 0.1					
Simazine (ppb)	0.04	ND	4	4	Herbicide runoff	No
	RANGE					
	ND – 0.08					
Alpha Emitters (pCi/L)	3.7	2.02 <sup>4</sup>	15	0	Decay of natural and man-made deposits	No
		RANGE				
		ND – 3.01				
Beta/photon emitters <sup>1</sup> (pCi/L)	5.4	1.92	50	0	Decay of natural and man-made deposits	No
		RANGE				
		ND – 3.82				
Combined Radium 226/228 (pCi/L)	1.08	0.182 <sup>4</sup>	5	0	Erosion of natural deposits	No
		RANGE				
		ND – 0.282				
Fluoride (ppm)	0.6	0.7	4	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	No
		RANGE				
		0.6 – 0.8				
Nitrate [as Nitrogen] (ppm)	Not Applicable	1.11	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
		RANGE				
		0.76 – 1.56				
Nitrite [as Nitrogen] (ppm)	Not Applicable	0.004 <sup>3</sup>	1	1	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
		RANGE				
		ND – 0.02				
Nitrate-Nitrite [as Nitrogen] (ppm)	0.47	Not Applicable	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
Barium (ppm)	0.023	0.039	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
		RANGE				
		0.027 – 0.053				
Total Organic Carbon <sup>2</sup> (ratio)	1.12	1.2	TT	N/A	Naturally present in the environment	No
	RANGE					
	1.01 – 1.23	1.0 – 1.7				

<sup>1</sup> The MCL for Beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for Beta particles.<sup>2</sup> 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.<sup>3</sup> This averaged result is a mathematical average and is below the detection level for any individual result.<sup>4</sup> Data collected in 2014 for Fairfax Water-Corbalis Alpha Emitters and Radium.

**TABLE THREE: Water Quality from Loudoun Water's Supplier  
(Fairfax Water) Specific to Ozonation Treatment**

Fairfax Water Corbalis Water Treatment Plant	MCL <sup>1</sup>	MCLG	Highest Quarterly Running Annual Average <sup>2</sup>	Range of results for individual sites	Major Source in Drinking Water	Violation
Bromate (ppb)	10	0	0.5	ND – 10	By-product of drinking water disinfection	No

<sup>1</sup> The MCL is based on the result of the Highest Quarterly Running Annual Average of all monitored sites.

<sup>2</sup> This result is a mathematical average and is below the detection level for any individual sample result.



# 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.

## 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?

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

### HOW YOU CAN HELP PROTECT SOURCE WATER:

- 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.



# 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](http://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 over-watering. 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. Loudoun Water recommends the watering schedule below to promote healthy plants and turf. This watering schedule also spreads out the water demand on our system.



LOUDOUN  WATER

LET'S GET **SMART** ABOUT **WATER**

OUTDOOR  
WATERING SCHEDULE

EVEN NUMBER HOME ADDRESSES		ODD NUMBER HOME ADDRESSES
<b>THURS/SUN</b>		<b>WED/SAT</b>

THE BEST TIME TO WATER YOUR YARD IS BETWEEN  
6 A.M. AND 11 A.M.  
TO AVOID EXCESS EVAPORATION

**AVOID OVER-WATERING!  
15 MINUTES IS ALL IT TAKES!**

[WWW.LOUDOUNWATER.ORG/WISEWATERUSE](http://WWW.LOUDOUNWATER.ORG/WISEWATERUSE)

## 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](http://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](http://www.loudounwater.org) for some creative ways to optimize your water use in the bathroom, kitchen, laundry room and more!

## 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. In 2017 Loudoun Water welcomed more than 60 different groups of local students for a free guided tour of our exhibits.

Located inside of our Administrative Services Facility 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. School groups, community organizations 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](http://www.loudounwater.org).





[www.loudounwater.org](http://www.loudounwater.org)

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PO Box 4000  
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(571) 291-7878    After-Hours Emergencies

Have a question about this report?  
[www.loudounwater.org/contactus](http://www.loudounwater.org/contactus)

LW Connect self-service customer portal  
[www.lwconnect.org](http://www.lwconnect.org)

Miss Utility / VA 811  
[www.va811.com](http://www.va811.com)  
Dial 811 in Virginia or 1-800-552-7001

## LET'S KEEP IN TOUCH

Join over 15,000 people who receive our newsletter, On Tap! Each issue includes service updates, seasonal tips and other Loudoun Water highlights.

To sign up, visit [www.loudounwater.org](http://www.loudounwater.org).



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