

CENTRAL SYSTEM

Drinking Water Quality Annual Report

FOR THE YEAR ENDING 2014



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 2014, 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 17, Table One shows the quality of the water as it flows within the Loudoun Water distribution system; and on page 18, Table Two shows the quality of the water as it leaves the two 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 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.boarddocs.com/va/lwva/Board.nsf/Public.

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.



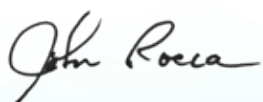
DEAR LOUDOUN WATER CUSTOMER:

As Chairman of the Loudoun Water Board of Directors, it is my great pleasure to share our 2014 Drinking Water Quality Annual Report. The highly trained team at Loudoun Water works daily to make sure your water is clean, healthy, and safe to drink. You expect the water from your tap to be safe and reliable each and every time you turn on the water – as it should be. This is our responsibility and we take it very seriously.

We also believe that exceptional water quality is paramount to a healthy community. But we don't do this on our own. We are on this journey together with you, our customers – our neighbors. We must be stewards of the environment and work side-by-side to protect our precious drinking water resources.

At Loudoun Water, it is our mission to sustainably manage water resources in the advocacy of health environment and quality of life – not only today, but well into the future. Read this report. Discuss it with your family and talk about ways that you can help conserve drinking water. Let's work together to fulfill our mission and grow this vibrant community that we all call home.

Sincerely,

A handwritten signature in black ink that reads "Johnny Rocca". The signature is fluid and cursive.

Johnny Rocca
Chairman
Loudoun Water Board of Directors



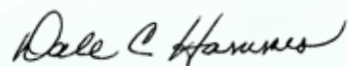
DEAR LOUDOUN WATER CUSTOMER:

Every day, Loudoun Water delivers healthy drinking water to nearly 215,000 people in our service area. Loudoun County is one of the fastest growing counties in the nation and as a result our customer base is growing exponentially. As its population and businesses grow, so does the demand for safe, clean drinking water. By 2040, Loudoun Water's customers may require up to 90 million gallons of drinking water every day.

Regardless of the amount of customers we serve, the quality of our drinking water must meet stringent state and federal standards developed by the EPA and administered by the Virginia Department of Health. I am pleased to report that your drinking water has, once again, met or exceeded all federal and state drinking water quality standards. You will see in this report the sources of your drinking water, how it is treated and the rigorous testing performed to ensure it is always clean, safe and healthy for you and your family.

We are very proud of this report and I hope you will take time to review the details. If you have questions, concerns or suggestions about your water quality or your water service, I encourage you to reach out to our customer relations team at (571) 291-7880 or via email at customerservice@loudounwater.org. We appreciate your feedback.

Sincerely,

A handwritten signature in black ink that reads "Dale C. Hammes". The signature is written in a cursive style.

Dale Hammes
General Manager

A BRIEF HISTORY OF LOUDOUN WATER

In May of 1959, the Loudoun County Board of Supervisors created Loudoun County Sanitation Authority, doing business as Loudoun Water, by a resolution through the Virginia Water and Waste Authorities Act.

Headquartered in Ashburn, Virginia, Loudoun Water provides water and wastewater service to nearly 215,000 people in its service area, which includes nearly all residents and businesses east of Route 15. As an authority, Loudoun Water makes no profit and receives no tax money; instead, Loudoun Water operates on user fees from customers and pays for all new water and wastewater infrastructure for new developments from fees paid directly by developers.

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 Creek Reservoir and Goose Creek Reservoir. Beaverdam Creek 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 starting in January 2014, your drinking water from Goose Creek was fully treated by Loudoun Water.

In 2014, Goose Creek Water Treatment Facility was purchased from the City of Fairfax. The treatment facility underwent numerous upgrades and renovations to ensure the quality of water provided to customers.

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.



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.

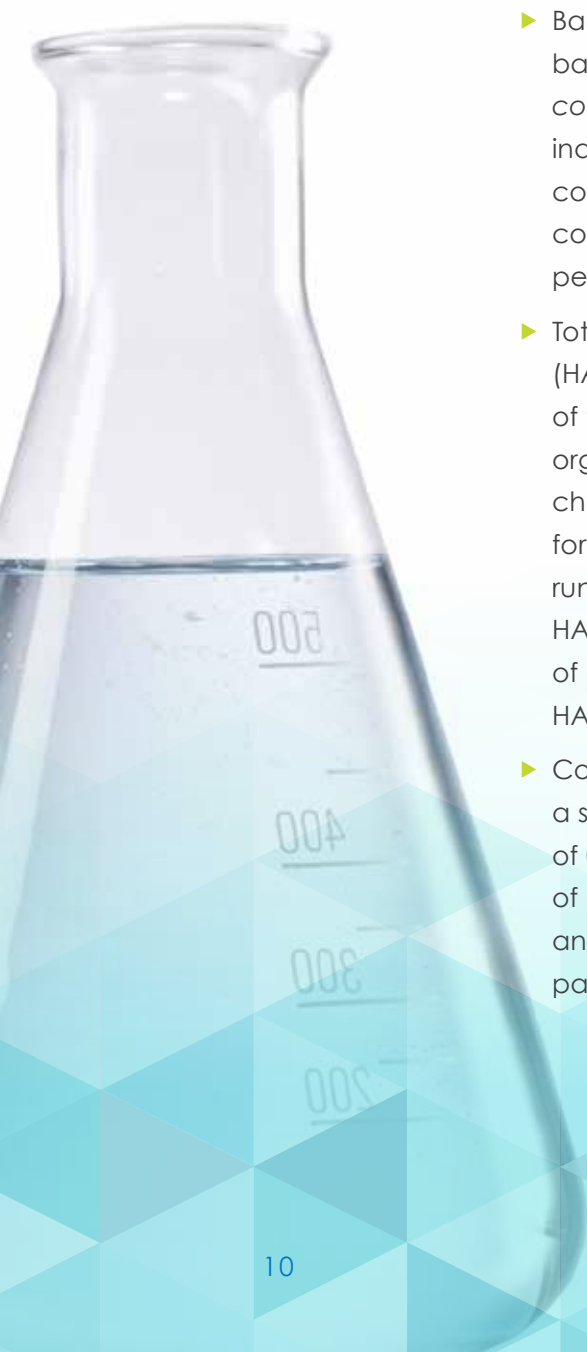
As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and radioactive material and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in the water include:

- ▶ 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.

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- ▶ 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 approximately 120 locations. Total coliform bacteria must not be present in more than five percent of monthly samples.
 - ▶ 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. In 2014, Loudoun Water tested for TTHMs and HAA5 at eight locations.
 - ▶ Corrosion control parameters (orthophosphate and pH) are a semiannual monitoring requirement. By dosing a minimum of 0.50 ppm orthophosphate and maintaining a minimum pH of 6.5, we reduce the potential for corrosion of lead, copper and other metals. Loudoun Water monitors for these corrosion parameters at 10 locations in 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. 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 in accordance with EPA's Lead and Copper Rule (LCR) since 1992. In 2014, the 90th percentile value for lead was non-detectable compared to the EPA action level of 15 ppb. The Virginia Department of Health requires Loudoun Water to monitor for lead at 50 locations every three years, with the next monitoring event to occur in 2017.

In addition to this required monitoring, Loudoun Water has gone the extra step to make sure that any changes in the distribution system, due to upgrades in the newly acquired Goose Creek Water Treatment Facility, have not adversely affected the concentrations of lead and copper at our customer's homes receiving water from the facility. During 2014, a special monitoring project verified that lead and copper levels were not affected. A second monitoring period will occur in 2015 to further confirm consistent water quality.

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 15 to 30 seconds, or until it becomes cold or reaches a steady temperature before using the water for drinking or cooking. Use only cold water for 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 Service Department at (571) 291-7880.

INFORMATION ABOUT CRYPTOSPORIDIUM IN THE POTOMAC RIVER

The following information was provided by our Potomac River water provider, Fairfax Water.

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. Fairfax Water consistently maintains its filtration process in accordance with regulatory guidelines to maximize removal efficiency. Our 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 has completed monitoring of the Potomac River for compliance with the EPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR). 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. Fairfax Water's monitoring program began in 2004 and involved the collection of

two samples from water treatment plant sources each month for a period of two years. Once monitoring for compliance with the LT2ESWTR was complete, Fairfax Water continued to monitor for *Cryptosporidium* at water treatment plant sources.

Under the LT2ESWTR, the average *Cryptosporidium* concentration determined whether additional treatment measures were needed. A *Cryptosporidium* concentration of 0.075 oocysts/Liter would have triggered additional water treatment measures. Fairfax Water's raw water *Cryptosporidium* concentrations consistently remain below this threshold.

The results for Potomac River 2014 are as follows:

Source (Before Treatment)	Average <i>Cryptosporidium</i> Concentration (oocysts/Liter)
Potomac River	0



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 THMs 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.

TURBIDITY

Turbidity is the clarity of the water. It is measured in Nephelometric Turbidity Units (NTU). Turbidity higher than 5 NTU is just 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) ¹	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	0.05	0.23	100%	TT	N/A	Soil Runoff	No
Loudoun Water – Goose Creek Water Treatment Facility	0.045	0.25	100%				No

Your water is tested for a large array of contaminants at locations as it enters into the distribution system. You'll find 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, 2014 to December 31, 2014, 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	0.8%	Cannot exceed 5% of monthly samples	0	Naturally present in the environment	No
<i>Escherichia coli</i> (E. coli) bacteria	0%	A routine sample and repeat sample are Total Coliform positive, and one is also E. coli positive	0	Human and animal fecal waste	No
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)	2.93	4	4	Water additive used to control microbes	No
	RANGE (INDIVIDUAL TEST RESULTS)				
	0.5 – 4.6				
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)				
	8.1 – 56.				
Haloacetic Acids (ppb)	Highest Quarterly Locational Running Annual Average	60	N/A	Byproduct of drinking water disinfection	No
	26.				
	RANGE (INDIVIDUAL TEST RESULTS)				
	2.1 – 48.				

Metal Components	90th Percentile Level	Action Level	Goal	Number Of Sites Above Action Level	Typical Source	Violation
Copper (ppm)	0.1	1.3	0	0	Corrosion of household plumbing; erosion of natural deposits	No
Lead (ppb)	ND	15	0	1	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 Range		MCL (Max Allowed)	MCLG (Goal)	Typical Source	Violation
	Loudoun Water Goose Creek Water Treatment Facility	Fairfax Water Corbalis Water Treatment Facility				
Atrazine (ppb)	0.18	ND	3	3	Runoff from herbicide used on row crops	No
	RANGE					
	ND – 0.35					
Alpha Emitters (pCi/L)	ND	2.02	15	0	Decay of natural and man-made deposits	No
		RANGE				
		ND – 3.01				
Beta/ photon emitters ¹ (pCi/L)	ND	3.09	50	0	Decay of natural and man-made deposits	No
		RANGE				
		ND – 5.99				
Radium 226/228 (pCi/L)	ND	0.182	5	0	Erosion of natural deposits	No
		RANGE				
		ND – 0.282				
Fluoride (ppm)	0.23	0.7	4	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	No
	RANGE					
	0.13 – 0.33	0.6 – 0.7				
Nitrate [as Nitrogen] (ppm)	0.63	1.10	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
		RANGE				
		0.78 – 2.03				
Nitrite [as Nitrogen] (ppm)	ND	ND	1	1	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
		RANGE				
		ND – 0.01				
Barium (ppm)	0.016	0.040	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
	RANGE					
	0.010 – 0.022	0.038 – 0.042				
Total Organic Carbon ² (ratio)	1.16 ³	1.7	TT	N/A	Naturally present in the environment	No
	RANGE					
	0.63 – 1.63	1.0 – 2.2				

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 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 value must be greater than or equal to 1 to be in compliance.

³ This water treatment plant started operation under Loudoun Water ownership in May 2014 and as of the end of 2014 there are not four quarters of operational data, therefore not yet able to calculate the twelve-month running average for compliance purposes. The data given is an average of the 8 months in operation during 2014.

UNREGULATED CONTAMINANT MONITORING

Loudoun Water is one of nearly 6,000 utilities across the country participating in the EPA's third round of the Unregulated Contaminant Monitoring Rule (UCMR3). We monitored unregulated contaminants to help EPA determine the occurrence of these contaminants in drinking water. EPA will use data from participating utilities to decide whether or not additional contaminants need to be regulated in drinking water for protection of public health.

Detected contaminants from the Loudoun Water monitoring of the UCMR3 monitoring are listed in the table below. Six (6) of the 28 contaminants have been detected in our water system. All detections were at low levels (parts per billion range). Hormones, perfluorinated compounds, synthetic organic compounds, and volatile organic compounds analyzed in the UCMR3 monitoring program were not detected in our treated drinking water. The EPA has not established maximum contaminant levels (MCL) for these unregulated contaminants, and the human health effects of these contaminants at the levels they were found is unclear. For more information about UCMR3 and the contaminants currently being sampled for, please visit <http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr3/>.

UCMR3 DATA TABLE FOR LOUDOUN WATER 2013 - 2014

Component	System Average	Range (Individual Test Results)
Chromium-6 (ppb)	0.11	ND - 0.2
Chlorate (ppb)	111.	ND - 350
Chromium, total (ppb)	0.11	ND - 0.46
Molybdenum (ppb)	1.9	ND - 24
Strontium (ppb)	109.	29 - 180
Vanadium (ppb)	0.16	ND - 0.64

SPOTLIGHT: POTOMAC WATER SUPPLY PROGRAM

Loudoun County is a dynamic and fast-growing county with a high demand for more safe, clean drinking water. By 2040, Loudoun Water customers may require up to 90 million gallons of drinking water per day – a 40 million gallon per day increase from current demand. To accommodate for future need, the Potomac Water Supply Program was developed to sustainably expand water supply capacity for future generations to come.

The result is a world-class program that is pioneering in scope, original in design, and sustainable in execution. The Potomac Water Supply Program involves:

- ▶ Developing assets and infrastructure to withdraw raw water directly from the Potomac River
- ▶ Banking raw water in retired quarries for future use
- ▶ Processing raw water at Trap Rock, a state-of-the-art water treatment facility to produce safe, clean drinking water
- ▶ Develop new transmission capacity to distribute the water to customers
- ▶ The initial phase will be completed in late 2017 when the water treatment plant is operational

As the primary stewards of water in our community, we are working hard to ensure a sustainable and reliable drinking water supply far into the future. We are committed to responsibly executing the Potomac Water Supply Program to minimize impacts to the Potomac River and to limit land disturbance. Our innovative approach to increasing water storage capacity – water banking – will give Loudoun Water the flexibility to suspend withdrawals from the Potomac River during periods of drought or during water supply emergencies. This flexibility of operation protects the Potomac River and its delicate ecosystem. In fact, the entire Program is being developed with an eye toward sustainability and minimizing community impact during construction and operation.

Trap Rock Water Treatment Facility

Loudoun Water's secure, state-of-the-art Trap Rock Water Treatment Facility, located in Leesburg, is designed to meet or exceed drinking water regulations to ensure that you have the highest quality drinking water available today – and for years to come. Trap Rock Water Treatment Facility was designed to be expandable and the processes scalable to meet the future demand of the rapidly growing community. Beyond providing safe, clean drinking water, the Trap Rock Water Treatment Facility features attractive architecture and will be constructed using low-impact development principles. Sustainable materials, technologies and management practices are being used to design the administration building of Trap Rock Water Treatment Facility for LEED certification. We are taking an overall low-impact development approach to building and construction by utilizing recycled building materials, establishing rain gardens to capture storm water, and by incorporating an ultra-efficient HVAC system.

Water Banking

Loudoun Water is proud to be the regional leader in Water Banking, ensuring that water supply will be safe and secure in the event of a drought or other water supply emergency. This pioneering approach to water supply management – storing water in a retired rock quarry – will initially allow Loudoun Water to store at least one billion gallons of water. As additional quarries are acquired, Loudoun Water will be able to store more than eight billion gallons of water in water banking quarries.

The water banking system protects your water supply, and it also protects the Potomac River. Because the system proactively withdraws and stores river water during normal flow, we will suspend direct water withdraws from the Potomac River during water supply emergencies. During water supply emergencies Loudoun Water will use banked water from the quarry, not water from the Potomac River, as source water for the drinking water treatment process. In this way, water banking offers treatment flexibility and climate resiliency so we can more reliably serve you with safe, clean drinking water whenever you need it.

IRRIGATION: KEEP YOUR WATER SAFE

Cross connection is a connection that occurs between a drinking (potable) water supply and a non-potable or unapproved source, which constitutes a very serious public health hazard. Backflow is the undesirable flow reversal of water and other substances into the water system.

According to federal and state regulations, to be most protective of public health, all properties with an irrigation system must be annually inspected by a certified backflow tester. For more information, please contact our customer service team at (571) 291-7880.

EDUCATION AND THE AQUIARY

Located inside of our Administrative Services Facility in Ashburn is an interactive educational center with 3,500 square feet of indoor exhibits and nearly one mile of outdoor trails. This exhibit, called the Aquary, first opened in 2008 and has hosted thousands of visitors of all ages. Visitors learn the story of drinking water treatment and delivery; source water protection; water conservation and water reclamation. Come explore 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.

EVERY DROP COUNTS!

Through the U.S. Environmental Protection Agency's WaterSense® program, you can identify a range of certified products to help you use water more wisely and save money on your water bill. Visit the WaterSense website at www.epa.gov/watersense to learn more about what you can do to make every drop count. To calculate your water use, estimate your water bill, and to learn about more ways to save water, please visit our website.

STAY INFORMED

Our bi-monthly customer e-newsletter, OnTap, is now available by email and on our website. Each issue provides customer updates, seasonal tips and Loudoun Water highlights. To sign up, visit our website.



USING TAP WATER FOR FISH TANKS

You 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.



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