2012 ANNUAL

Community Systems

Drinking Water Quality Report

for the year ending 2011

LOUDOUN WATER

Introduction

Loudoun Water is pleased to present your annual water quality report. The information in this report represents data collected and reported in 2011. The Safe Drinking Water Act of 1974 (SDWA) sets the limits for contaminants in drinking water. These limits are represented in this report as MCLs, or Maximum Contaminant Levels. The SDWA was amended most significantly in 1986 and 1996.

The tables you see in this report provide the actual data collected on your water throughout the year. Please contact us at any time to obtain our latest data. If your question or concern is not answered here, please let us know so we can get the answer for you. You may find your answers at **www.loudounwater.org** or you may call Customer Service during business hours Monday through Friday at (571) 291-7880. For after hours emergencies, call (571) 291-7878.

You are always welcome to attend our monthly Loudoun Water Board Meetings, usually held the second Thursday of each month at 3 p.m. in the Boardroom of our Administration office at 44865 Loudoun Water Way, Ashburn, VA 20147.

Who Provides Your Water?

The Loudoun County Sanitation Authority, doing business as Loudoun Water, is a state-chartered authority, formed in 1959 by resolution by the Loudoun County Board of Supervisors under the Virginia Water and Waste Authorities Act.

Headquartered in Ashburn, Virginia, Loudoun Water provides water and wastewater service to residents and businesses in the unincorporated areas of Loudoun County, including community systems like yours. At last count, Loudoun Water serves nearly 200,000 people in our Central Service Area and more than 3,000 people in our Community Systems.

Loudoun Water is a public body politic and corporate, which means that it does not make a profit and it operates under guidance of a nine-member Board appointed to four-year staggered terms by the County Board of Supervisors. Loudoun Water is a public agency, but its operations and finances are independent of the County's tax-supported services. Loudoun Water operates on the income provided through water and wastewater user fees. Water and wastewater lines created to serve new developments in Loudoun are paid for by the developers themselves. This ensures that current customers do not fund the development of new lines.

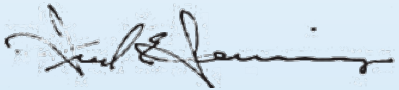
Dear Loudoun Water Customer:

As Chairman of the Loudoun Water Board of Directors, I am pleased to present our 2012 Annual Drinking Water Quality Report, intended to provide information to you about the quality of your Community System drinking water. Loudoun Water operates seven such Community Systems within the county. These systems serve more than 3,000 people every day in support of our mission: to provide sustainable water services that protect health, the environment and quality of life.

Earlier this year, and throughout 2011, I had the chance to speak with several of you about your water and what is required for Loudoun Water to provide safe, reliable water service. I encourage you to review this report and learn more about the water delivered to your home, including how your water is treated and tested before it comes out of your tap. This document provides an extensive list of what we test for in your water and information on the treatment that is used to ensure its safety and maintain compliance with U.S. Environmental Protection Agency and Virginia Department of Health standards.

Thank you for taking the time to read this report. For additional information about Loudoun Water and how we deliver high quality drinking water to your home, I encourage you to visit our website at **www.loudounwater.org**. On our site, we have pages for each Community System that will provide you with updated, specific information about your system throughout the year.

Sincerely,



Fred E. Jennings
Chairman
Loudoun Water Board of Directors

Dear Loudoun Water Customer:

Every day, Loudoun Water delivers water – life's most precious resource – to your homes through our Central System. Our 2012 Annual Drinking Water Quality Report, I believe, shows how seriously our dedicated staff takes this important role in your lives. The report was prepared in accordance with the requirement of the Safe Drinking Water Act and the information in this report contains data collected and reported in 2011, unless otherwise noted.

The quality of your drinking water must meet stringent state and federal standards developed by the U.S. Environmental Protection Agency and administered by the Virginia Department of Health. As you will read in this report, the drinking water delivered to your homes is of high quality and, once again, met all federal and state drinking water quality standards.

As always, we are interested in your opinions and encourage you to relay your comments to us via phone, email or via our website, **www.loudounwater.org**. Our site also provides you with an opportunity to learn more about how you manage your usage to the benefit of both you and your community.

In addition to our website, we continue to educate our customers, and especially young people, through our Aquiary, a combination indoor/outdoor educational center. You can enjoy more than 3,500 square feet of exhibits indoors then take a stroll through our wetlands on our interpretative trail. For more information about visiting our Aquiary, visit our homepage, **www.loudounwater.org** and click on the Talks and Tours link.

Sincerely,

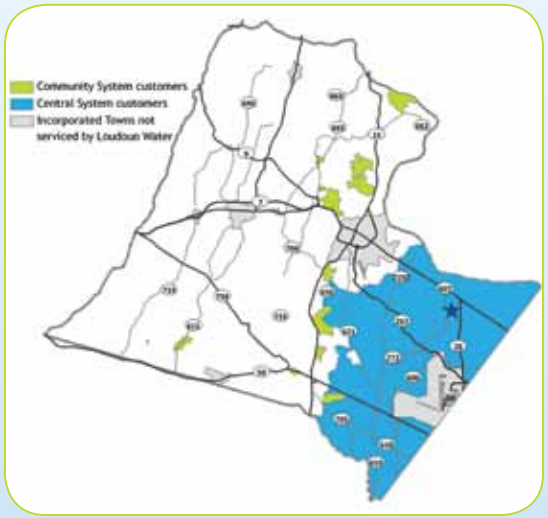
Dale C. Hammes

Dale C. Hammes
General Manager

Source Water Assessment

A Virginia Department of Health source water assessment for all groundwater systems served by Loudoun Water determined them to be highly susceptible to contamination using the state source water assessment program criteria. This assessment report consists of maps showing the source water area, an inventory of known land use activities of concern and documentation of any known contaminants. For more information about this report, contact Mike McGill, Director of Customer Relations and Communications, at **mmcgill@loudounwater.org** or (571) 291-7880.

Loudoun Water Service Area



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.

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 of the treated water is a monthly monitoring requirement. The analysis is reported based on the presence or absence of total and Escherichia coliform. Total coliform bacteria may not be present in more than one monthly sample and E.coli may not be present in any sample.

- Bacteriological analysis of the untreated water (raw water) varies from a monthly to yearly monitoring requirement. This analysis is an important indicator of raw water quality and can trigger additional treatment requirements.
- Volatile Organic Compounds is a test for 56 different chemicals such as fuel derivatives and solvents. The analysis is initially performed quarterly and is reduced to annually and eventually every three years as repeated results show no detections of the chemicals.
- Radiological analyses are performed for alpha and beta emitters, as well as for radium 226 and 228. Samples are initially conducted quarterly and may eventually be reduced to once every six years after sufficient data shows low levels of results.
- Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) are disinfection byproducts that 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 an annual average of 80 parts per billion (ppb). For HAA5 the limit is 60 ppb. They are initially measured annually in small groundwater systems and eventually reduced to every three years.
- Lead and copper are measured at the point of use (generally a homeowner's kitchen sink). In small community water systems, five to 10 homes are sampled initially every six months. This is then reduced first to annually and then three years based upon consistently meeting the action limit.
- Nitrite and nitrate analysis is performed annually. The combined concentration of nitrate and nitrite may not exceed 10 ppm.
- Inorganics and metals are analyzed every three years in groundwater systems to assure that none of the parameters exceed the respective MCLs.

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. (NOTE: Loudoun Water does not have any lead service lines in its system.)

Where does lead in drinking water come from?

Loudoun Water's raw water 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.

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 (800) 426-4791, TTY 711.

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.

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/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.

Water Quality Analysis and Results

We constantly monitor for various contaminants in the water supply to meet all regulatory requirements. The following tables list only those contaminants 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.

How is Your Water Treated?

Your water is treated with chlorine for disinfection. Iron and manganese treatment occurs at Beacon Hill and Selma Estates due to the natural presence of iron and manganese in these ground water supplies. Corrosion control with zinc orthophosphate is applied at Raspberry Falls and Selma Estates, and fluoride is added to the Selma Estates and Village Green at Elysian Heights water systems.

Where Does Your Water Come From?

Groundwater is supplied by wells located in the development:

- **Beacon Hill** – two wells
- **Raspberry Falls** – two wells (Well PW-1 taken off-line in November 2011; water supplied by Well PW-2 the remainder of the year. Well F was brought online for a short period of time then taken offline following an incident involving turbidty. It was returned to service in May 2012.)
- **Lenah Run** – three wells
- **Rokeby** – four wells
- **Village Green** – five wells; one of which is an emergency well if needed
- **Selma** – two wells; ultimately plan to have four wells total

Water Quality in Beacon Hill

Microbials	Highest Result	MCL	MCLG	Typical Source	Violation
Total Coliform Bacteria	1	Cannot be detected in more than one monthly sample	0	Naturally present in environment	No
Fecal Coliform Bacteria	All Absent	A routine sample and repeat sample are Total Coliform positive, and one is also Fecal Coliform or E. Coli positive	0	Human and animal fecal waste	No
Organics	**Highest Quarterly Running Annual Average**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Trihalomethanes (ppb)	6.77	80	N/A	By-product of drinking water disinfection	No
Haloacetic Acids (ppb)	2.97	60	N/A	By-product of drinking water disinfection	No
Component	**Highest Quarterly Running Annual Average** **Range**	**MRDL**	**MRDLG**	**Typical Source**	**Violation**
Chlorine (ppm)	1.4 0.5 – 1.7	4	4	Water additive used to control microbes	No
Inorganics and Metals	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Barium[1] (ppm)	0.28	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride[1] (ppm)	0.17	4.0	4.0	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	No

Radiologicals	Highest Result	MCL	MCLG	Typical Source	Violation
Combined Radium 226 and 228[2] (pCi/L)	1.5	5	0	Corrosion of household plumbing	No
Alpha emitters[2] (pCi/L)	3.2	15	0	Corrosion of household plumbing	No
Beta/photon emitters (pCi/L)[2,3]	4.7	4	0	Decay of natural and man-made deposits	No

Metal Components	90th Percentile Level	Action Level	MCLG	Number Of Sites Above Action Level	Typical Source	Violation
Copper[2] (ppm)	0.44	1.3	0	0	Corrosion of household plumbing	No
Lead[2] (ppb)	ND	15	0	0	Corrosion of household plumbing	No

[1] Samples taken in 2010. Next required testing is 2013. [2] Samples taken in 2010. Next required testing is 2016. [3] The MCL for Beta particles is 4 mrem/year. EPA considers 50 pCi/L to be a level of concern.

Notice To Customers Of The Beacon Hill Water System

In keeping with the National Primary Drinking Water Regulations, we are obliged to inform you that Loudoun Water may be in violation of state regulations. You were individually informed of the following action through a letter from Loudoun Water dated December 13, 2011.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During August 2011 we did not monitor or test for coliform bacteria and disinfectant residual, therefore we cannot be sure of the quality of our drinking water during that time and the health effects of not sampling are unknown.

One routine sample for bacteriological analysis was required and none were analyzed. Disinfectant residual measurement, required at the same time as the collection of the bacteriological samples, was also not analyzed.

Past records show that the system has had no problems with bacteriological contamination and the routine samples for the months of September, October, November and December were taken and found no bacteriological contamination and an acceptable chlorine residual was maintained.

There is nothing you need to do at this time.

We are attempting to prevent further violations by ensuring that all required sampling in our distribution system is done in accordance with that state drinking water regulations. Future violations will be reported as required by state regulations in order to increase consumers' awareness of conditions that exist in their public water system.

For more information, please contact Mike McGill, Director of Customer Relations and Communications, at **mmcgill@loudounwater.org** or (571) 291-7880.

Water Quality in Village Green at Elysian Heights

Inorganics and Metals	Highest Result / Range	MCL	MCLG	Typical Source	Violation
Nitrate/Nitrite [as Nitrogen] (ppm)	0.25	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
Barium[1] (ppm)	0.13	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride[2] (ppm)	1.0	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	No
Microbials	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Coliform Bacteria	All absent	Cannot be detected in more than one monthly sample	0	Naturally present in environment	No
Fecal Coliform Bacteria	All absent	A routine sample and repeat sample are Total Coliform positive, and one is also Fecal Coliform or E. Coli positive	0	Human and animal fecal waste	No
Organics	**Highest Quarterly Running Annual Average**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Trihalomethanes[1] (ppb)	6.62	80	N/A	By-product of drinking water disinfection	No
Haloacetic Acids[1] (ppb)	1.35	60	N/A	By-product of drinking water disinfection	No
Component	**Highest Quarterly Running Annual Average**	**MRDL**	**MRDLG**	**Typical Source**	**Violation**
Chlorine (ppm)	1.1 0.6 – 1.7	4	4	Water additive used to control microbes	No
Radiologicals	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Alpha emitters[3] (pCi/L)	7.4	15	0	Erosion of natural deposits	No
Beta/photon emitters[3,4] (pCi/L)	4.4	4	0	Decay of natural and man-made deposits	No

[1]Samples taken in 2010. Next required testing is 2013. [2]Samples taken in 2009. [3]Samples taken in 2010. Next required testing is 2016. [4]The MCL for Beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for Beta particles.

Metal Components	90th Percentile Level	Action Level	MCLG	Number Of Sites Above Action Level	Typical Source	Violation
Copper (ppm)	0.2	1.3	0	0	Corrosion of household plumbing	No
Lead (ppb)	ND	15	0	0	Corrosion of household plumbing	No

Water Quality in Lenah Run

Inorganics and Metals	Highest Result / Range	MCL	MCLG	Typical Source	Violation
Nitrate/Nitrite [as Nitrogen] (ppm)	2.1 / 1.7 – 2.1	10	10	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits	No
Arsenic[1] (ppb)	6.1 / 5.3 – 6.1	10	0	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	No
Barium[2] (ppm)	0.3 / 0.16 – 0.3	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Microbials	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Coliform Bacteria	All absent	Cannot be detected	0	Naturally present in environment	No
Fecal Coliform Bacteria	All Absent	A routine sample and repeat sample are Total Coliform positive, and one is also Fecal Coliform or E. Coli positive	0	Human and animal fecal waste	No
Organics	**Highest Quarterly Running Annual Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Trihalomethanes[3] (ppb)	8.74	80	N/A	By-product of drinking water disinfection	No
Haloacetic Acids[3] (ppb)	2.23	60	N/A	By-product of drinking water disinfection	No
Component	**Highest Quarterly Running Annual Average**	**MRDL**	**MRDLG**	**Typical Source**	**Violation**
Chlorine (ppm)	1.2 / 0.7 – 1.9	4	4	Water additive used to control microbes	No
Radiologicals	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Combined Radium 226 / 228[4] (pCi/L)	2.6 / 0.3 – 2.6	5	0	Erosion of natural deposits	No
Alpha emitters[4] (pCi/L)	5.3 / 2.2 – 5.3	15	0	Erosion of natural deposits	No

[1] Sample taken in 2010 of 5.3 ppb. While your drinking water meets EPA standards for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

[2] Sample taken in 2010 of 0.16 ppm.
[3] Samples taken in 2010. Next sampling in 2013.
[4] Samples taken in 2007 and 2010. Next required sampling in 2013 and 2016.

Metal Components	90th Percentile Level	Action Level	MCLG	Number Of Sites Above Action Level	Typical Source	Violation
Copper (ppm)	0.6	1.3	0	0	Corrosion of household plumbing	No
Lead (ppb)	ND	15	0	0	Corrosion of household plumbing	No

Water Quality in Raspberry Falls

Inorganics and Metals	Highest Result	MCL	MCLG	Typical Source	Violation
Nitrate/nitrite [as nitrogen] (ppm)	0.57	10	10	Runoff from fertilizer; leaching from septic tanks, erosion of natural deposits	No
Barium (ppm)	0.045	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Microbials	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Coliform Bacteria	All absent	Cannot be detected in more than one monthly sample	0	Naturally present in environment	No
Fecal Coliform Bacteria	All Absent	A routine sample and repeat sample are Total Coliform positive, and one is also Fecal Coliform or E. Coli positive	0	Human and animal fecal waste	No
Component	**Highest Quarterly Running Annual Average** / Range	**MRDL**	**MRDLG**	**Typical Source**	**Violation**
Chlorine (ppm)	1.5 / 0.4 – 2.2	4	4	Water additive used to control microbes	No
Organics	**Highest Quarterly Running Annual Average**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Trihalomethanes[1] (ppb)	0.73	80	N/A	By-product of drinking water disinfection	No
Haloacetic Acids[1] (ppb)	ND	60	N/A	By-product of drinking water disinfection	No
Radiologicals	**Highest Result** / Range	**MCL**	**MCLG**	**Typical Source**	**Violation**
Combined Radium 226 / 228 (pCi/L)	2.53 / 0.643 – 2.53	5	0	Erosion of natural deposits	No

[1]Samples taken in 2010. Next required testing in 2012.

Metal Components	90th Percentile Level	Action Level	MCLG	Number Of Sites Above Action Level	Typical Source	Violation
Copper (ppm)	0.3	1.3	0	0	Corrosion of household plumbing	No
Lead (ppb)	ND	15	0	0	Corrosion of household plumbing	No

Notice To Customers Of The Raspberry Falls Water System

In keeping with the National Primary Drinking Water Regulations, we are obliged to inform you that we may be in violation of state regulations. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

Loudoun Water has received a minor Tier 3 monitoring violation from the Virginia Department of Health (VDH) for a failure to collect additional lead and copper samples for the Raspberry Falls water system for the period of January through June, 2011.

Loudoun Water was on a reduced monitoring schedule of every three years due to historical results of lead and copper monitoring being significantly below EPA-established maximum contaminant Action Levels. This additional lead and copper sampling requirement was added by VDH due to Loudoun Water's installation of an orthophosphate corrosion inhibitor system (a standard practice in the water treatment industry) in the summer of 2010. The system addressed a copper pipe pitting problem experienced by several Raspberry residents in their internal copper plumbing.

Following the addition of the system, one round of samples was collected in the fall of 2010. The lead and copper levels were found to be significantly below the action level.

The requirement for additional sampling was communicated by VDH in a letter to Loudoun Water dated November 30, 2010. Loudoun Water had no record of receiving this letter and subsequently did not collect the additional lead and copper samples during the required period. Unfortunately, no further communication occurred regarding this requirement until after the specified period. The required additional sampling was completed in September and December, 2011 with lead at non-detectable levels and copper at 0.31 mg/L which is significantly below the EPA-established Action Levels of 0.015 mg/L and 1.3 mg/L respectively.

There is nothing you need to do at this time.

We are attempting to preclude further violations by ensuring that all required sampling in our distribution system is done in accordance with the state drinking water regulations. Loudoun Water staff has worked with VDH to develop a clear communication process to include, at the beginning of each year, that VDH electronically send all water system monitoring requirements to the appropriate Loudoun Water staff.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly. For more information, please contact Mike McGill, Director of Customer Relations and Communications at (571) 291-7969 or via email at **mmcgill@loudounwater.org**.

Water Quality in The Reserve at Rokeby

Inorganics and Metals	Level Detected	MCL	MCLG	Typical Source	Violation
Nitrate/nitrite [as nitrogen] (ppm)	3.0	10	10	Runoff from fertilizer; leaching from septic tanks, erosion of natural deposits	No
Barium (ppm)	0.11	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride	0.11	4.0	4.0	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	No
Microbials	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Coliform Bacteria	All absent	Cannot be detected in more than one monthly sample	0	Naturally present in environment	No
Fecal Coliform Bacteria	All Absent	A routine sample and repeat sample are Total Coliform positive, and one is also Fecal Coliform or E. Coli positive	0	Human and animal fecal waste	No
Component	**Highest Quarterly Running Annual Average**	**MRDL**	**MRDLG**	**Typical Source**	**Violation**
	Range				
Chlorine (ppm)	1.0	4	4	Water additive used to control microbes	No
	0.7 – 1.3				
Radiologicals	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
	Range				
Combined Radium 226 / 228[2] (pCi/L)	0.6	5	0	Erosion of natural deposits	No
	ND – 0.6				
Alpha emitters[2] (pCi/L)3	2.1	15	0	Erosion of natural deposits	No
	1.6 – 2.1				
Beta/photon emitters[2,3] (pCi/L)	3.5	4	0	Decay of natural and man-made deposits	No
	2.4 – 3.5				

[1] Samples taken in 2009. Next required testing is 2012.

[2] Samples taken in 2006. Next required testing is 2012.

[3] The MCL for Beta particles is 4 mrem/year. EPA considers 50 piC/L to be the level of concern for Beta particles.

Metal Components	90th Percentile Level	Action Level	MCLG	Number Of Sites Above Action Level	Typical Source	Violation
Copper (ppm)	0.08	1.3	0	0	Corrosion of household plumbing	No
Lead (ppb)	3	15	0	0	Corrosion of household plumbing	No

Water Quality in Selma					
Inorganics and Metals	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Nitrate/nitrite [as nitrogen] (ppm)	1.1	10	10	Runoff from fertilizer; leaching from septic tanks, erosion	No
Barium (ppm)	0.11	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	No
Fluoride (ppm)	0.69	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	No
Microbials	**Highest Result**	**MCL**	**MCLG**	**Typical Source**	**Violation**
Total Coliform Bacteria	All absent	Cannot be detected in more than one monthly sample	0	Naturally present in environment	No
Fecal Coliform Bacteria	All Absent	A routine sample and repeat sample are Total Coliform positive, and one is also Fecal Coliform or E. Coli positive	0	Human and animal fecal waste	No
Component	**Highest Quarterly Running Annual Average** / Range	**MRDL**	**MRDLG**	**Typical Source**	**Violation**
Chlorine (ppm)	0.90 / 0.6 – 1.3	4	4	Water additive used to control microbes	No
Radiologicals	**Highest Result** / Range	**MCL**	**MCLG**	**Typical Source**	**Violation**
Combined Radium 226 / 228[1] (pCi/L)	2.19 / 0.2 – 2.19	5	0	Erosion of natural deposits	No
Alpha emitters[1] (pCi/L)	1.95	15	0	Erosion of natural deposits	No
Beta/photon emitters (pCi/L)[1,2]	1.35	4	0	Decay of natural and man-made deposits	No

[1] Samples taken in 2009. Next required testing is 2012. [2] The MCL for Beta particles is 4 mrem/year. EPA considers 50 piC/L to be the level of concern for Beta particles.

Metal Components	90th Percentile Level	Action Level	MCLG	Number Of Sites Above Action Level	Typical Source	Violation
Copper (ppm)	0.04	1.3	0	0	Corrosion of household plumbing	No
Lead (ppb)	ND	15	0	0	Corrosion of household plumbing	No

Glossary

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.

ND: Non-detect. Levels were 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.

NRL: No regulatory limit.

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.

Non-regulated Results						
	Beacon Hill	**Lenah Run**	**Raspberry Falls**	**Rokeby**	**Selma**	**Village Green**
Total Dissolved Solids (mg/L)	**310**	**260**	**210**	**190**	**160**	**240[b]**
Chloride (mg/L)	24	26	7.3	17	5.6	12[b]
Sulfate (mg/L)	19	12	2.8	13	7.2	18[b]
Sulfide (mg/L)	ND	ND	ND	ND	ND	ND
Calcium (mg/Las CaCO3)	130[a]	52			27[a]	52[b]
Total Hardness (mg/Las CaCO3)	**180**	**180**	**120**	**86–132[b]**	**130**	**180–205[b]**
Bicarbonates (mg/Las CaCO3)		36	130	150	78	190[a]
Alkalinity (mg/Las CaCO3)	140	170	120	120	130	190[b]
Conductance (umho/cm)	440	410	330	330	320	440[b]
pH(standard units)	7.4	7.4	7.5	7.8	7.6	7.9[b]
Magnesium (mg/L)	17	16	5.4	11	14	12[b]
Sodium (mg/L)	12	20	4.6	10	7.6	26
Potassium (mg/L)	5.1	1.3	0.87	1.1	2.5[a]	0.86[b]
Zinc (mg/L)	0.01	0.025	0.02	0.02	0.19	ND[b]
Silver mg/L	ND	ND	ND	ND	ND	ND[b]

[a] Parameters analyzed in 2008.
[b] Parameters analyzed in 2009.

Visit our Aquiary

The public is always welcome to visit Loudoun Water's award-winning Aquiary, an interactive educational center with 3,500 square feet of indoor exhibits and nearly one mile of outdoor trails. The indoor exhibits are open during our regular business hours, Monday through Friday, 8:00 a.m.-5:00 p.m; the outdoor trails are open from dawn until dusk.

We love to schedule guided Aquiary tours for schools and community groups. Click here to fill out our online form. Due to the advanced subject of water reclamation, guided tours work best for children 8 and up.

The Broad Run Water Reclamation Facility is not open to the public for tours for security reasons. However, the Aquiary shows you everything that's happening inside the reclamation facility in full color and in interactive detail.

Did you get our email?

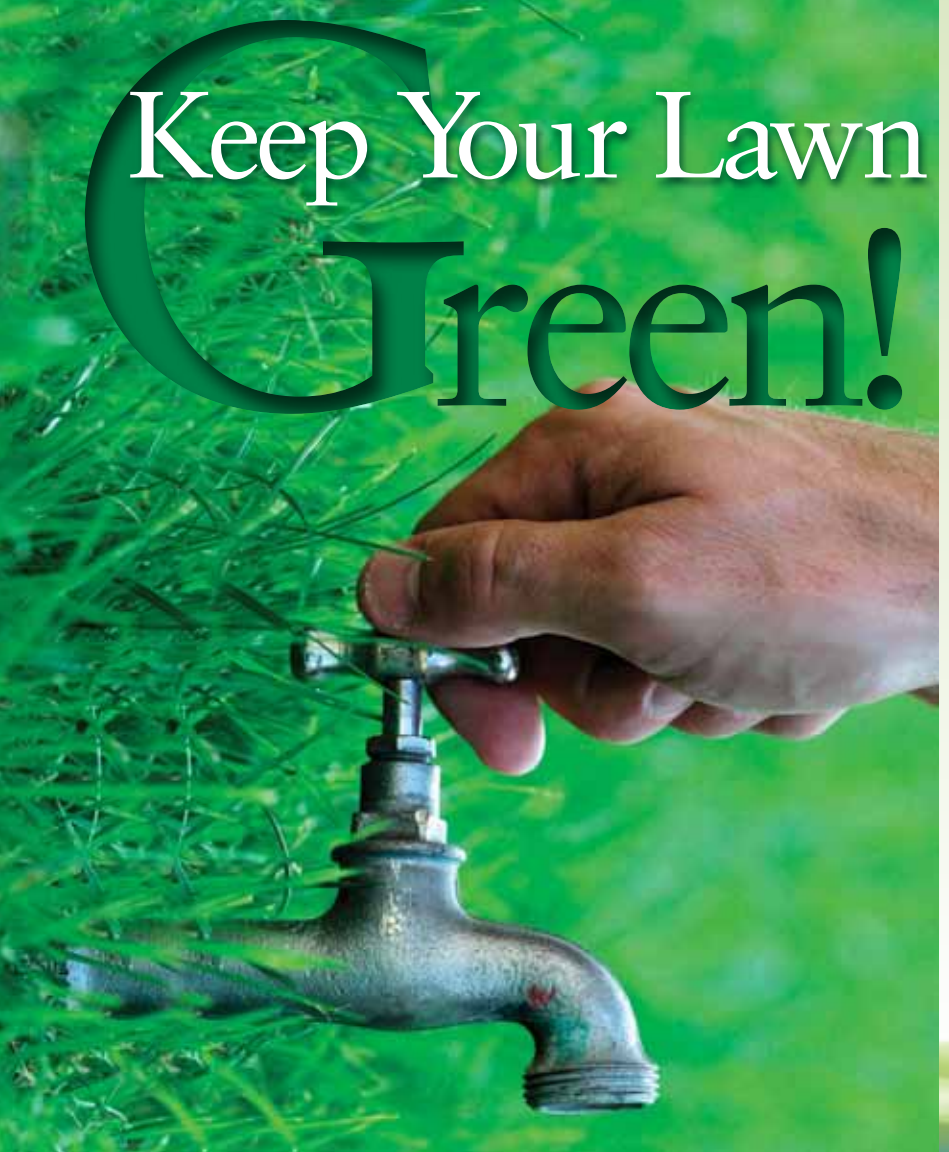
Our bill stuffer, called the NewsLeak, is now available as a quarterly newsletter by email. Responding to hundreds of requests from you to do so, we have replaced the bill stuffer that used to come with your bill with this electronic format. Sign up to receive news and information related to your water and sewer service. Just visit our website and type in your email address on our home page under "Sign up for our quarterly E-newsletter." You'll receive the newsletter in April, July, October and January.

We want to talk to you!

If you would like to hear a talk about your water, you've come to the right place. Our staff is always looking for ways participate in your community and talk to our customers about the services we provide. We offer presentations to civic groups and HOA/condo associations and you'll usually find our booth at dozens of community events every year.

We are also expanding our outreach into county classrooms. You pick the subject matter and the time allotment and we'll provide an active-learning presentation that's appropriate for your group or your school (grade-level 3rd grade and up).

If you are interested in having Loudoun Water come together with you and your neighbors, either in the community or the classroom, use the Contact Us page or email Mike McGill, Director of Customer Relations and Communications, at **mmcgill@loudounwater.org**.



Keep Your Lawn and Your Wallet Green!

Loudoun Water's tiered rate structure rewards our customers who wisely use their water. The more you conserve, the less you are likely to pay.

Here are five simple steps to help you conserve and save:

- ✔ Number 1! Don't overwater your lawn! Overwatering wastes water and weakens your grass. Landscaping experts suggest a twice-a-week schedule. Here's one way to remember. Odd street address? Water Wednesdays and Saturdays. Even address? Water Thursdays and Sundays.
- ✔ Water in the early morning or late evening. Water during the day and you're watering the sky. It evaporates before it gets into the soil.
- ✔ Check your sprinkler/irrigation system. Make sure it's not watering your sidewalk or street.
- ✔ Plant drought-tolerant plants, grasses and shrubs. They won't use as much water and will survive dry periods. We suggest Bluebeard or Tickseed.
- ✔ Use mulch to retain moisture. It looks great and you'll water less often.

For more ways you can save water and money, visit **www.loudounwater.org** and click on the Conservation link.

LOUDOUN WATER

www.loudounwater.org

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PO Box 4000 | 44865 Loudoun Water Way | Ashburn, VA 20146
WWW.LOUDOUNWATER.ORG