2024 Results	Contaminant	Violation	MCLG	MCL	Level Found and Range	Sample Sites & Frequency	Typical Source(s)
Regulated Contaminants	Total Coliform Bacteria	**NO**	0	Presence in 1 in 15 samples/mo.	TC On 06/12/24 & 9/03/24	15 per month throughout service area	Naturally present in environment
	Turbidity (NTU)	**NO**	TT	1 NTU max & < 0.3 NTU 95% of time	High of 0.09 NTU 100% < 0.3 NTU	Continuously monitored at water plant	Soil runoff
	Total Organic Carbon (PPM = mg/L)	**NO**	TT	4 quarter avg. < 2.0 PPM or RR ≥ 1.0	RR range: 1.37 – 1.39 Min. RR: 1.00	Monthly	Naturally present in environment
Inorganic Contaminants	Barium (PPM = mg/L)	**NO**	2.0	2.0	0.019	Annually at water plant	Natural erosion of soil deposits
	Copper (PPM = mg/L)	**NO**	1.3	AL = 1.3	0.0433 90th percentile 100% ≤ AL	30 sites thru service area every 3 years	Corrosion of household plumbing
	Lead (PPB = µg/L)	**NO**	0.0	AL = 15	< 2.0 90th percentile 100% ≤ AL	30 sites thru service area every 3 years	Corrosion of household plumbing
	Fluoride (PPM = mg/L)	**NO**	4.0	4.0	Average: 0.82 Range: 0.61 – 0.84	3 - 4 / day at the water plant	Water additive to promote strong teeth
	Nitrate & Nitrite (PPM = mg/L)	**NO**	10.0	10.0	0.1	Annually at water plant	Septic tanks, soil erosion, sewage, and fertilizers
Disinfection Byproducts, Precursors, & Residuals	Trihalomethane Total (TTHMs) (PPB = µg/L)	**NO**	N/A	4 quarter site running avg. (4qsra) < 80.0	Highest 4qsra: 59 Range: 10 - 102	Quarterly, at 4 locations in service area	By-product of drinking water disinfection
	Haloacetic Acids (HAA5s) (PPB = µg/L)	**NO**	N/A	4 quarter site running avg. (4qrsa) < 60.0	Highest 4qsra: 49 Range: 17 - 63	Quarterly, at 4 locations in service area	By-product of drinking water disinfection
	Chlorine (PPM = mg/L)	**NO**	MRDLG ≤ 4.0 & > 2.0	MRDL = 4.0	Highest avg. quarter: 1.6 Range: 0.6 – 2.1	15 per month throughout service area	Water additive to disinfect to control microbes

Action Level (AL): Concentration of a contaminant which, if exceeded, triggers enhanced treatment or other requirements which a water system must follow.

Maximum Contaminant Level Goal (MCLG): The "Goal"; 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 Contaminant Level (MCL): The "Maximum Allowed"; the highest level of a contaminant allowed in drinking water. MCLs are set as close to MCLGs as feasible, using the best available treatment technology.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Maximum Residual Disinfectant Level (MRDL): Highest level of a disinfectant allowed in drinking water. The addition of a disinfectant is necessary for the control of microbial contaminants.

Nephelometric Turbidity Unit (NTU): Measure of water clarity. Turbidity over 5 NTUs is just noticeable to an average person.

Parts / Billion (PPB) or Micrograms / Liter (µg/L): Corresponds to one minute in 2,000 years or a single penny in $10,000,000.

Parts / Million (PPM) or Milligrams / Liter: Corresponds to one minute in 2 years or a single penny in $10,000.

Removal Ratio (RR): Ratio of actual quantity of a contaminant removed to the required quantity of a contaminant removed.

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

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2024 Drinking Water Quality and Consumer Confidence Report

Amherst County Service Authority (ACSA)
2024 Drinking Water Quality Report

ACSA is pleased to send you our 2024 Drinking Water Quality Report. Our mission has always been to provide a safe and reliable supply of drinking water, meeting all State and Federal standards administered by the Virginia Dept. of Health (VDH).

If you have questions about this report, wish to know more about any aspect of your drinking water, or want to know how to participate in the decisions that may affect water quality, please contact the ACSA Executive Director at 434-845-1605. Regularly scheduled meetings of the ACSA Board of Directors are held at 1:30 pm the first Tuesday of the month at the Amherst County Administration Building, 153 Washington St., Amherst, VA. We welcome your attendance.

ACSA's public drinking water supply originates from two sources: Graham Creek Reservoir and Harris Creek. The watersheds supplying these sources are located solely in Amherst County. VDH's 2003 Source Water Assessment classifies surface water sources as highly susceptible to contamination. This does not mean either of our water sources has ever been, or ever will be, contaminated beyond the purification capability of ACSA's highly trained operational staff and high-performance water treatment technology, both of which consistently earn excellent reviews during annual VDH inspections. To facilitate excellent raw water quality, ACSA has one of the nation's most rigorous Water Supply Watershed Protection Programs as a result of best management practices, local regulation of land use activities, and ACSA's owning of adjacent properties to buffer the raw water sources.

ACSA's Henry L. Lanum, Jr. Water Filtration Plant is a conventional rapid sand filtration facility with a production capacity of 2 million gallons per day. Approximately 170 miles of water distribution mains transport our high-quality finished water to 4 strategically located water storage tanks and to, 6127 active service connections (December, 2024 figure).

Sources of drinking water (tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells.

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

* Microbial impurities (viruses, bacteria, etc.), which may develop at agricultural livestock operations; septic systems, sewage treatment plants; and other sources;
* Inorganic contaminants (salts, metals, etc.) which can be naturally occurring or result from urban stormwater runoff; farming; industrial or domestic wastewater discharges; oil or gas production mining; and other sources;
* Pesticides and herbicides, which may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses;
* Naturally occurring or manufactured organic chemical contaminants, including synthetic and volatile organic chemical byproducts of industrial processes and petroleum production, gas stations, urban and roadway stormwater runoff, septic systems, and other sources;
* Radioactive contaminants, naturally occurring or the result of oil and gas production or mining activities.

The EPA and VDH regulate impurities in tap water to ensure safety in public water systems, while the Food & Drug Administration set limits on contaminants in bottled water for public health protection.

ACSA samples and conducts over 140 tests each day for pollutants that could potentially contaminate our water supply. Additionally, over 180 offsite compliance tests of ACSA's raw and finished water are conducted each year by an independent testing lab operated by the Commonwealth of Virginia.

The previous summarizes monitoring results from January 1 to December 31, 2024. All drinking water, including bottled water, may contain at least small amounts of some contaminants. It is important to remember that the presence of these contaminants does not necessarily indicate a health risk.

Tests were also run for many other potential contaminants which were shown not to be present. The ACSA Board and staff take great pride in providing drinking water which consistently meets or exceeds all rigid State and Federal drinking water quality standards.

In 2024, EPA implemented the Fifth Unregulated Contaminant Monitoring Rule (UCMR5), testing for Per and Polyfluoroalkyl Substances (PFAS). ACSA's tests results revealed we are in compliance. Call 434-845-1605 to obtain copies of results.

More information about contaminants and potential health effects can be obtained from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

Maximum Contaminant Levels (MCLs) are set at very stringent levels by EPA. In developing the standards, EPA assumes that the average adult drinks 2 liters of water each day during a 70-year life span. EPA generally sets MCLs at levels that will result in no adverse health effects, or a one-in-ten-thousand to one-in-one-million chance of having the described health effects. The EPA has determined that your water is safe at these levels.

Some people may be more vulnerable to even minimal contaminants in drinking water than the general population. Immuno-compromised individuals, such as persons with cancer that are undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, infants, and some elderly, can be particularly at risk. These persons should seek advice about drinking water from their health care providers. EPA and the Centers for Disease Control have established guidelines on appropriate means to lessen the risk of infection from *Cryptosporidium* and other microbiological contaminants for vulnerable persons. This information is available from the EPA Safe Drinking Water Hotline previously mentioned.

Copper and lead in the environment is another concern. ACSA's drinking water supply does not contain elevated levels of copper or lead. However, these metals can leach into the water from private service lines or household plumbing. Of 30 ACSA finished water samples collected in 2024 (required every 3 years), only 1 showed a detectable concentration of lead; this sample result was far below the EPA Action Level (AL). Of 30 other similar samples, only 14 showed detectable levels of copper, all far below the AL (refer to the table).

The range of lead and copper results are:

Lead <2 ppb → 4.88 ppb
Copper <0.2 ppb → 0.087 ppb

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. ACSA is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing Lead materials within your home, thus taking steps to reduce your family's risk.

Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Amherst County Service Authority at 434-845-1605 or email acsava.acsava.com.

Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney or nervous system problems. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at the following link: http://www.epa.gov/safewater/lead.

As a requirement of EPA's LCCR (Lead and Copper Rule Revisions), in 2024, a service line inventory was prepared and submitted by ACSA to VDH's Office of Drinking Water (ODW). This inventory involved determining types of service laterals for every ACSA drinking water account for each physical address. ACSA is pleased to report findings indicating there are no lead service lines in our Community Water System. To access the results of this inventory submission, please click the following link: https://www.acsava.com/images/Documents/LCCR%20Inventory%20-%20Official/ACSA%20ODW-Community%20Service%20Line%20Inventory%20241016%20Official.pdf

One final note… long-term consumption of water with trihalomethanes (THMs) or haloacetic acids (HAA5s) above the MCLs may lead to liver, kidney, or central nervous system issues and could increase cancer risk. ACSA's drinking water supply consistently does not contain elevated levels of THMs or HAA5s.

Thank you for allowing ACSA to provide clean, reliable, high quality drinking water to you and your family in 2024. We ask our customers to help us protect our water resources, which are the heart of our community, our way of life, and our children's future.