Albemarle County Service Authority

Serving Conserving

Urban Area 2024 Annual Drinking Water Report

Includes Water Testing for 2023

CONTENTS

Successfully Meeting Water Quality Challenges

Dear Customer,

The ACSA and the Rivanna Water and Sewer Authority (RWSA), in partnership with the Virginia Department of Health (VDH), work cooperatively to ensure our customers receive a safe and reliable supply of drinking water. The RWSA collects, stores and treats the water, while the ACSA purchases the finished water and delivers it to our customers through our distribution system. Our dedicated staff work hard every day to ensure your water is always there when you turn on the tap.

Our collective efforts to provide you with the highest quality drinking water never end. Not only is the ACSA working to fully comply with the EPA's lead, copper and PFAS standards; the ACSA has also been proactive with testing and will continue to monitor and provide updates on any levels detected in our water.

Last year the EPA announced new proposed drinking water standards for a few PFAS. We expect these to be finalized in the coming months. While these chemicals have not been found in our finished water, the ACSA will test for more of these compounds in the coming years so we can continue to assess the situation. I assure you the ACSA and RWSA are confident in our ability to protect you from concerning levels of these substances.

A major factor in keeping your water of the highest quality is our continued investment in our infrastructure. Throughout our decades of service, the ACSA has been able to meet the many water quality challenges we've faced because of the willingness of our customers to invest in our systems when other communities across the country have been hesitant. It is because of your commitment that our services remain safe, resilient, and prepared for the future.

Last year we unveiled our 2023 through 2027 Strategic Plan, which uses input from our customers and our employees to prioritize our short and long-term organizational work as we strengthen our infrastructure. You can learn more about our plan at www.serviceauthority.org.

The ACSA is committed to providing you, the customer, with this water quality report because informed customers are our best allies. If you wish to receive a printed copy of the report, contact Tim Brown at **(434) 977-4511, Ext. 119** or at **tbrown@serviceauthority.org.**

Thank you again for being our customer.

Gary O'Connell

Gary O'Connell, Executive Director

ACSA Board of Directors

Richard Armstrong, Chair - Scottsville District
Charles Tolbert, Vice Chair - Jack Jouett District
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John Parcells - White Hall District
Clarence Roberts - Rivanna District
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The ACSA Board of Directors holds meetings on the third Thursday of each month at 9am at 168 Spotnap Road. Call **(434) 977-4511** or visit **www.serviceauthority.org** for more information.

The Rivanna Water & Sewer Authority (RWSA) Board of Directors holds meetings on the fourth Tuesday of each month at 2pm at 695 Moore's Creek Lane. Call **(434) 977-2970** or visit **www.rivanna.org** for more information.

Your Water Supply & Treatment

The RWSA operates three water treatment plants (WTP) to provide water to the City of Charlottesville and the urban ring served by the ACSA. The South Rivanna WTP is sourced by the South Rivanna Reservoir; the Observatory WTP is sourced by the Ragged Mountain and Sugar Hollow Reservoirs; and the North Rivanna WTP is sourced by the North Fork Rivanna River.

The Source Water Assessment of the South Rivanna Reservoir watershed was updated in 2020 by the Virginia Department of Health (VDH). VDH determined the reservoir's "relative susceptibility to contamination" to be high due to its surface water being exposed to an inconsistent array of contaminants at varying concentrations. This assessment is due to changing hydrologic, hydraulic, and atmospheric conditions with potential sources of contamination in one of the zones of the reservoir's assessment area.

All water sources are surface water supplies, replenished by precipitation, stream flow, overland flow and groundwater flow. All supplies have a low mineral content, are low in hardness or scale (soft), and there is little of the iron or manganese commonly found in the area's groundwater. The treated water does not have any iron or manganese.

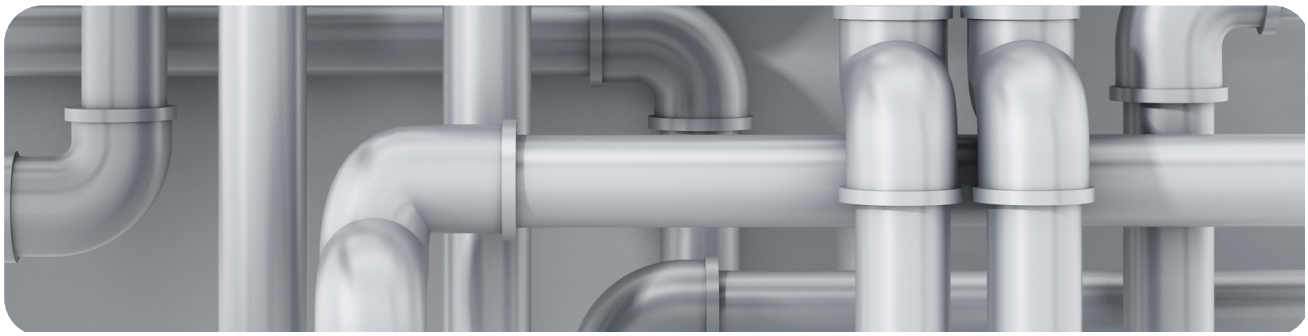
Each plant employs both physical and chemical treatment processes before releasing water into the distribution system. Sodium hypochlorite is used at all three plants to disinfect the treated water. Fluoride is added at each plant to promote good dental health. The origin of the water provided to your tap may vary from time to time depending on demand, the level of storage in the system, and your location.

Significant upgrades to all three plants were completed in 2018 related to the Stage 2 Disinfection Byproducts Rule. An advanced treatment process that employs granular activated carbon (GAC) was installed to result in higher quality water. In particular, the concentration of disinfection byproducts (TTHMs and HAAs; see discussion of contaminants) has been significantly reduced. In addition to lowering these chemical compounds, GAC serves as a barrier to other potential contaminants and improves certain taste and odor issues.

Water Treatment for Corrosion Control

It is standard practice that a phosphate chemical be added to drinking water supplies during treatment in order to reduce corrosion of the metal pipes in the distribution system and in customer plumbing. The chemical forms a protective layer on the inside of the pipes, reducing corrosion and the possibility of mainly lead and copper from entering the water.

For more than 30 years, the RWSA used a polyphosphate product for corrosion control, and it was very effective in keeping lead and copper out of customer water supplies. The RWSA evaluated and implemented a new, blended, orthophosphate product to optimize distribution system lead and copper corrosion control in February 2021, with a shift to an all orthophosphate product in February 2022. This change received full VDH approval.



Advanced Treatment Using Granular Activated Carbon (GAC)

Granular activated carbon (GAC) is very effective in improving water quality in distribution systems. It was added to all of our treatment processes to aid in the additional removal of organics that, when combined with chlorine, create disinfection byproducts (DBPs) regulated by the EPA. GAC also provides improved water taste and odor, and it is proven to be highly effective at removing both manufactured and naturally occurring contaminants that are discovered in a growing number of water supplies across the country. (See the related section on PFAS.) While testing has shown our service areas are not impacted by these contaminants, GAC provides an added level of treatment for the protection of our drinking water.

Installation of the GAC systems was completed in 2018 and the reduction of DBPs has been significant. We are extremely proud of the results because they demonstrate how community support and investment in our water treatment will result in excellent drinking water quality now and for years to come.

Water Quality Standards

The information in this report has been collected and reported in accordance with the drinking water standards established by the U.S. EPA and the VDH. The RWSA conducts extensive testing of the source waters and treated water before it ever leaves the plant, as well as testing weekly, monthly and quarterly samples within the distribution system.

In addition to the data contained in this report, other testing includes such parameters as "heavy" metals, volatile organic compounds, semi-volatile organic compounds, herbicides and pesticides in the treated water. They are not listed here since none of these parameters was detected. More specific information can be obtained by contacting Tim Brown at **(434) 977-4511, ext. 119,** or at **tbrown@serviceauthority.org.**

More information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water Hotline **(800-426-4791)** or by visiting their website **(www.epa.gov/safewater).** You can also see the section on Cryptosporidium in this report.

As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases radioactive material, as well as substances resulting from the presence of animals and human activities. In other words, all surface water supplies are exposed to a wide array of "contaminants" at varying concentrations. However, the presence of these contaminants does not necessarily indicate that water poses a health risk. Even bottled water may reasonably be expected to contain at least minimal amounts of some contaminants.

Internal Issues of Mold

The most common water-related complaint we have received from our customers over the years is the occasional appearance of a black growth in toilets, and in fixtures like faucets and shower heads. This is a harmless form of mold; the water is completely safe to drink. The mold is not coming into your home through our water pipes. Instead, the mold is the result of airborne spores, and the level of chlorine in the water cannot prevent mold growth. The spores come from hardwood forests, construction sites, and mulch piles. In particular, we have seen a very clear link between mold and mulch supplies for several years.

Testing has shown the mold to be very common types. More information, including tips on controlling mold, is found at **www.serviceauthority.org/waterqualitysupply/water-quality** or by calling Tim Brown at **(434) 977-4511, ext. 119.**

Per- and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances, known more commonly as PFAS, are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s because of their heat, water, and stain resistance. There are thousands of different PFAS compounds, a few of which have been more widely used and studied than the others.

PFAS are found in many products in use every day, including:

- Fire extinguishing foam: In aqueous film-forming foams (or AFFFs) used to extinguish flammable liquid-based fires. Such foams are used in training and emergency response events at airports, shipyards, military bases, firefighting training facilities, chemical plants and refineries.
- Manufacturing or chemical production facilities that produce or use PFAS: For example, at chrome-plating, electronics, and certain textile and paper manufacturers.
- Food: Some examples include fish caught from water contaminated by PFAS and dairy products from livestock exposed to PFAS.
- Food packaging: For example, in grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes and candy wrappers.
- Household products and dust: For example, in stain and water-repellent products used on carpets, upholstery, clothing, and other fabrics; cleaning products; non-stick cookware; paints, varnishes and sealants.
- Personal care products: For example, in certain shampoos, dental floss and cosmetics.

PFAS can also be found in drinking water from public systems and private wells.

Due to their widespread production and use, as well as their ability to move and persist in the environment, surveys conducted by the Centers for Disease Control and Prevention (CDC) have shown that most people in the United States have been exposed to some PFAS. Most known exposures are relatively low but can be elevated, particularly when people are exposed to a concentrated source over long periods of time. Some PFAS chemicals can accumulate in the body over time.

Current scientific research suggests that exposure to high levels of certain PFAS may lead to adverse health outcomes. However, research is still ongoing to determine how varying levels of exposure to different PFAS can lead to a variety of health effects.

Sampling associated with the EPA's Fifth Unregulated Contaminant Monitoring Rule (UCMR 5) is being conducted nationwide between 2023 and 2025. We will test our water for 29 PFAS compounds (plus lithium) under UCMR 5 to help the EPA assess the public health and environmental risks of these substances in drinking water. See the section on UCMR 5.

In March 2023, the EPA announced proposed national drinking water standards, known as Maximum Contaminant Levels (MCLs), for two PFAS compounds, PFOA and PFOS, at four (4) parts per trillion each. The EPA also announced a proposed "Hazard Index" calculation for four additional PFAS compounds that establishes an MCL for the mixture if it rises above a certain level. Following public comment and scientific review processes, it was anticipated that the new standards would be announced in early 2024. As of March 1, 2024, this has not occurred. The effective date for the new standards will likely be three years after the date of the announcement.

While there is significant debate about the EPA's proposed standards and Hazard Index, the ACSA can report that, based on past testing, PFAS compounds are not a significant issue in the Urban Area, as well as in our other service areas. While we were not required to do so, the ACSA has worked with the RWSA for several years to monitor PFAS compounds in your water.

In ten (10) rounds of testing between December 2018 and February 2024 involving the source water and treated water of six treatment plants managed by Rivanna Water and Sewer Authority, PFOA has been detected on only one occasion at 2.1 parts per trillion (ppt). PFOS has never been detected. The reporting limit used by the certified contract laboratory for testing was 2.0 ppt or less. Testing will continue in 2024.

As mentioned earlier, the ACSA uses advanced water treatment in the form of granular activated carbon (GAC), which has been proven to be highly effective in removing PFAS compounds.

Revised Lead and Copper Rule

The Environmental Protection Agency's (EPA) Lead and Copper Rule (LCR), first established in 1991, recently underwent its most extensive revision in 30 years to reduce the risks of lead exposure. This will be accomplished by better protecting children at schools and childcare facilities, getting the lead out of our nation's drinking water, and empowering communities through information.

Improvements under the new rule, which have an effective date of October 2024, include:

- Using science-based testing protocols to identify more lead sources in drinking water.
- Lowering the lead "action level" to jumpstart mitigation earlier and in more communities.
- Mandating more and complete lead service line replacements.
- For the first time, requiring testing in schools and childcare facilities.
- Requiring water systems to identify and make public the locations of lead service lines.

As the ACSA and RWSA develop our compliance plans for the new LCR, we want you to know we have been proactive about lead and copper in several ways. We began service line material identification in 2021 and, to date, **we have not found any lead service lines in our systems.** Meter setters with a lead content were removed years ago.

As mentioned earlier, the RWSA recently conducted detailed corrosion-control studies of all treatment plants and implemented slight changes in the chemical used to inhibit corrosion.

The ACSA and RWSA have decades of excellent lead and copper test results. Since 2016, just under 97% of all samples (350 out of 362) have had undetectable levels of lead.

As of March 1, 2024, the materials used in the service lines for nearly 99% of the ACSA's customers have been documented. **We have not identified any lines containing lead.**

Communication has begun with Albemarle County Public Schools (ACPS) about lead and copper testing that is set to begin in 2025 in accordance with the revised Lead and Copper Rule. ACPS conducted extensive testing in 2016 and 2018 with excellent results. The ACSA has also started our work with private schools and childcare facilities to test their sites in accordance with the LCR.

Lead in 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 internal plumbing. RWSA and the ACSA are responsible for providing high-quality drinking water; it is non-corrosive, has a corrosion inhibitor added to coat the pipes, and is delivered to you in pipes that are free of lead.

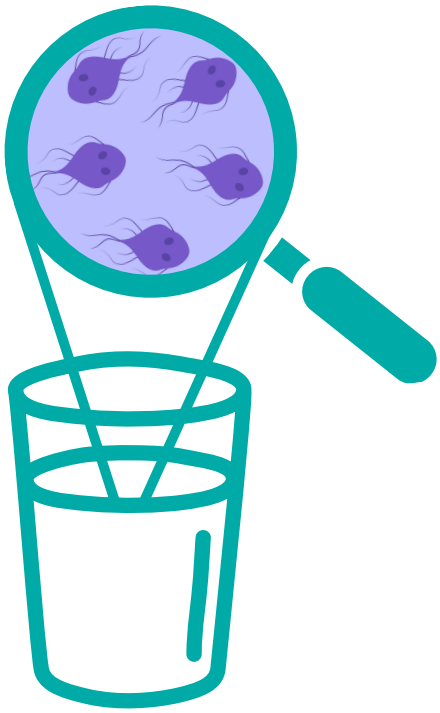
However, we cannot control the variety of materials used in the plumbing components of houses and businesses. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before drinking or cooking.

If you are concerned about lead in your water, you may wish to have your water tested. The periodic lead and copper testing at select, high-risk households last occurred in the summer of 2022 (see the accompanying data chart).

A trace amount of lead was found in only one of the 30 samples in 2022, and it was the result of minimal water use in the home for several months. Information on lead in drinking water, testing methods, and steps you can take to reduce exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at www.epa.gov/safewater/lead.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface waters throughout the U.S. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection characterized by nausea, diarrhea, and abdominal cramps. Cryptosporidium may be spread through means other than drinking water. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at risk of developing a potentially life-threatening illness.



Although filtration removes the pathogen, the most commonly used filtration methods cannot guarantee 100% removal. The RWSA makes every effort to optimize the filtration process at all of the WTPs to ensure the greatest degree of Cryptosporidium removal. Based on the results of recent studies, our water sources have been placed in the lowest risk category for exposure to Cryptosporidium.

Fluoride

The naturally-occurring fluoride content of our source waters (reservoirs and streams) is quite low. Therefore, fluoride is added to your water at treatment plants to promote good dental health. Fluoridation of drinking water was first introduced in the U.S. in the 1940s, and the Centers for Disease Control and Prevention named it one of the ten great public health achievements of the 20th century.

In 2011, the U.S. Department of Health and Human Services (DHHS), jointly with the U.S. Environmental Protection Agency (EPA), recommended that the level of fluoride added to drinking water be reduced from a range of 0.7-1.2 ppm to 0.7 ppm.

The main reason for this action is that Americans have access to more sources of fluoride than they did decades ago. In addition to the fluoride added to many public water supplies, it is found in toothpastes and mouth rinses, and is routinely applied to children's teeth by dental professionals.

DHHS officially decreased the recommended level of fluoride in drinking water to 0.7 ppm in 2015. The range of fluoride added to your water in 2023 was 0.62 - 0.91 parts per million (ppm).

UCMR 5

The federal Safe Drinking Water Act amendments of 1996 require the EPA to publish a list of 30 unregulated contaminants every five (5) years. These are contaminants in treated water that are currently unregulated yet are of concern as to the safety of drinking water supplies should the contaminants be present above a certain threshold. The contaminants are tested by public water supplies across the country over a three-year period. This monitoring requirement is known as the Unregulated Contaminant Monitoring Rule (UCMR), and we are currently in the fifth round of such testing.

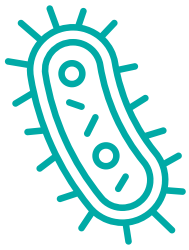
The 30 contaminants for UCMR 5 include 29 PFAS compounds and the metal lithium. The extreme focus on the PFAS compounds mirrors the attention these chemicals have received in the past few years.

The RWSA was required to sample quarterly for a 12-month period at the South Rivanna and Observatory treatment plants serving the Urban system, and at the Crozet treatment plant for the separate Crozet system. Samples were collected between May 2023 and February 2024, and analyzed by a major certified laboratory in the Midwest.

We are very pleased to report that there were no detectable compounds in any of the 12 samples (three sample locations for four events). The detection limits for the PFAS compounds were from 2-5 parts per trillion (ppt), and for lithium it was 9 parts per billion (ppb).

This is yet another testament to the quality of the drinking water we deliver to you, our customer.

Potential Health Risks Associated With These Contaminants



Total and Fecal Coliform Bacteria

Coliforms are a large group of bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Fecal coliform bacteria and E. coli, in particular, indicate a likely contamination from human or animal wastes. These microorganisms can result in short-term effects such as nausea, headache, cramps and diarrhea, and they pose a special health risk for infants, young children, the aged, and those with severely compromised immune systems.

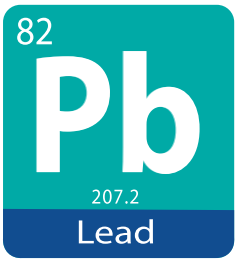
Turbidity

Turbidity is a measure of the clarity of water. On its own, elevated turbidity has no health effects. However, turbid water can interfere with disinfection and may provide a medium for microbial growth. Elevated turbidity may also indicate the presence of disease-causing organisms, including bacteria, viruses or parasites that can cause such symptoms as nausea, headache, cramps and diarrhea.

Combined Radium, Gross Alpha and Gross Beta

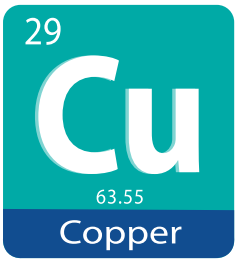
These are naturally-occurring forms of radiation, resulting from certain minerals that are radioactive. When these minerals are eroded into the source water, radiation in the water may result. Some people who drink water containing radium, or alpha or beta emitters, over many years may have an increased risk of getting cancer.

Potential Health Risks Associated With These Contaminants



Lead and Copper

The EPA Lead and Copper Rule mandates a household testing program for these metals, and the values reported in the chart are from samples that were collected from select households. Infants and children who drink water containing lead in excess of the Action Level could experience delays in physical or mental development. Children could show deficits in attention span and learning abilities.



Adults who drink this water over many years could possibly develop kidney problems or high blood pressure. See the earlier section for additional information on lead. Copper is an essential nutrient, but some who drink water containing copper in excess of the Action Level could experience gastrointestinal distress in a relatively short period of time. Some who drink this water over many years could develop kidney or liver damage. Individuals with Wilson's disease should consult their doctor.

Barium

Barium is a metal that is naturally-occurring in rock and the soil. Some people who drink water containing barium in excess of the MCL over many years may experience an increase in their blood pressure.

Fluoride

Fluoride is an element added at the water treatment plants to promote strong teeth. Some people who drink water containing fluoride in excess of the MCL over many years could develop bone disease, with pain and tenderness of the bones. Children who drink water containing fluoride in excess of the MCL may develop mottled teeth. See the separate section for additional information on fluoride.

Chlorine

Chlorine is added at the treatment plant to inactivate disease-causing microbes. Some people who use water containing chlorine in excess of the MRDL could experience irritation of the eyes, nose and skin. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.

Potential Health Risks Associated With These Contaminants

Nitrate

Nitrate is a form of nitrogen found primarily in fertilizers, sewage, and runoff from natural deposits. Infants below the age of six months who drink water containing nitrate in excess of the MCL could develop "blue baby syndrome" in which there is a bluish coloration of the skin and shortness of breath. The infant can become seriously ill and, if untreated, may die.

Trihalomethanes and Haloacetic Acids

These are compounds formed by the interaction of chlorine with naturally-occurring organic matter, and they are sometimes referred to as disinfection by-products. Chlorine is added at the treatment plant to deactivate disease-causing microbes, and organic matter is naturally present from leaves and decaying plants in the reservoirs and streams.

Some people who drink water containing these compounds in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous system, and may have an increased risk of getting cancer.

What If I Am Immunocompromised?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons, such as those undergoing chemotherapy; people who have undergone organ transplants; persons with HIV/AIDS or other immune system disorders; and some elderly and infants can be particularly at risk from infections. These people should seek advice from their healthcare providers about drinking water.

EPA and CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from EPA's Safe Drinking Water Hotline **(800-426-4791)** or by visiting their website at **www.epa.gov/safewater.**

2023 Water Quality Test Results

Primary Standards - Potential Health Risk	MCLG	MCL	Urban Area Water Results	# Samples > AL	Range of Detections	Violation?	Typical Source of Contaminant
MICROBIOLOGICAL ORGANISMS; RELATED MEASUREMENTS							
Total Coliform Bacteria (1)	0	Presence in 5% of samples per month	0 per mth. (2)	N/A	0 per month	No (2)	Naturally present in the environment
Fecal Coliform Bacteria (1)	0	See footnote (3)	0 per month (2)	N/A	0 per month	No (4)	Human and animal fecal waste
Turbidity (max. single value)	N/A	1 (5)	0.17 NTU	N/A	N/A	No	Soil runoff
Turbidity (% of monthly samples below 0.3 NTU)	N/A	At least 95% (5)	98%	N/A	N/A	No	Soil runoff
RADIOACTIVE COMPOUNDS							
Combined Radium (6)	0 pCi/l	5 pCi/l	0.9 pCi/l	N/A	< 0.5 - 0.9 pCi/l	No	Erosion of natural deposits
Gross Alpha (6)	0 pCi/l	15 pCi/l	< 0.38 pCi/l	N/A	< 0.3 - < 0.38 pCi/l	No	Decay of natural deposits
Gross Beta (6,7)	0 pCi/l	50 pCi/l	1.7 pCi/l	N/A	1.1 - 1.7 pCi/l	No	Erosion of natural deposits

Primary Standards - Potential Health Risk	MCLG	MCL	Urban Area Water Results	# Samples > AL	Range of Detections	Violation?	Typical Source of Contaminant
INORGANIC COMPOUNDS							
Lead (8)	0 ppb	15 ppb (AL)	< 2.00 ppb (9)	0	< 2.00 - 8.72 ppb	No	Corrosion of household plumbing
Copper (8)	1.3 ppm	1.3 ppm (AL)	0.061 ppm (9)	0	< 0.020 - 0.134 ppm	No	Corrosion of household plumbing; erosion of natural deposits
Barium	2 ppm	2 ppm	0.030 ppm	N/A	< 0.010 - 0.030 ppm	No	Erosion of natural deposits; drilling waste discharges
Fluoride	4 ppm	4 ppm	0.87 ppm	N/A	0.62 - 0.91 ppm	No	Water additive that promotes strong teeth
Nitrates	10 ppm	10 ppm	0.07 ppm	N/A	< 0.05 - 0.07 ppm	No	Fertilizer runoff
DISINFECTION & DISINFECTION BYPRODUCT CONTAMINANTS							
Free Residual Chlorine	MRDL = 4 ppm	MRDLG = 4 ppm	1.21 ppm (10)	N/A	0.21 - 2.13 ppm	No	Water additive to control microbes (disinfectant)
Total Trihalomethanes (TTHMs)	0	80 ppb	37 ppb (11)	N/A	3 - 53 ppb	No	Disinfection byproduct
Haloaectic Acids (HAAs)	0	60 ppb	22 ppb (11)	N/A	5 - 46 ppb	No	Disinfection byproduct

Secondary Standards / Aesthetic Factors	MCLG	MCL	Urban Area Water Results	# Samples > AL	Range of Detections	Violation?	Typical Source of Contaminant
Chloride	N/A	250 ppm	11.9 - 18.2 ppm	N/A	11.9 - 18.2 ppm	No	Runoff/leaching of natural deposits
Iron	N/A	0.3 ppm	< 0.05 ppm	N/A	N/A	No	Runoff/leaching of natural deposits
Manganese	N/A	0.05 ppm	< 0.01 ppm	N/A	N/A	No	Runoff/leaching of natural deposits
pH	N/A	6.5 - 8.5 S.U.	7.4 - 7.6 (mth. avg.)	N/A	7.4 - 7.6 (mth. avg.)	No	Runoff/leaching of natural deposits
Sulfate	N/A	250 ppm	< 5.0 - 19.9 ppm	N/A	< 5.0 - 19.9 ppm	No	Runoff/leaching of natural deposits
Total Dissolved Solids	N/A	500 ppm	64 - 106 ppm	N/A	64 - 106 ppm	No	Runoff/leaching of natural deposits
OTHER PARAMETERS OF INTEREST							
Alkalinity	N/A	N/A	21 - 54 ppm (mth. avg.)	N/A	21 - 54 ppm	N/A	Runoff/leaching of limestone minerals
Conductivity	N/A	N/A	114 - 170 micromhos/cm	N/A	114 - 170 micromhos/cm	N/A	Runoff/leaching of natural deposits
Hardness	N/A	N/A	20 - 40 ppm	N/A	20 - 40 ppm	N/A	Runoff/leaching of limestone minerals
Sodium	N/A	N/A	9.34 - 24.6 ppm	N/A	9.34 - 24.6 ppm	N/A	Runoff/leaching of natural deposits

What Do All the Numbers Mean?

First, they show your drinking water met or exceeded all regulatory requirements during 2023. We are fortunate to have reliable sources for your drinking water needs, and well-operated treatment facilities. The information provides you with details on each potentially harmful contaminant or compound detected in your drinking water.

Footnotes

(1) Unit of measurement for total and fecal coliform bacteria is the presence or absence of bacteria in a 100 ml sample.

(2) Of the 1,056 routine samples collected in 2023, **no sample indicated the presence of total coliform bacteria.**

(3) Fecal coliform MCL: A routine sample and a repeat sample are total coliform positive, and at least one is also fecal coliform positive.

(4) No repeat sample indicated a positive result for fecal coliform bacteria or total coliform bacteria.

(5) The MCL for turbidity is for no single measurement to exceed 1 NTU, and for 95% of all measurements to be below 0.3 NTU.

(6) Last sampled in 2017. To be sampled again in 2024.

(7) The EPA considers 50 pCi/l to be the level of concern for beta particles.

(8) Sampled in July 2022 from 30 select, high-risk residences. The one detectable value was the result of minimal water usage in the tested home for several months. All locations will be sampled again in 2025.

(9) The value reported is the 90th percentile of all data (30 samples) collected.

(10) The value reported is the highest running annual average. Range is all individual samples.

(11) TTHM and HAA results are averaged over four quarters at each sampling location to determine compliance with the MCL. Range of detections is from 2023, but "Results" includes late 2022 and 2023.

Definitions

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are as close to the MCLGs as possible using the best available treatment technology.

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

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to public health.

ppm: Parts per million or milligrams per liter (mg/l). One part substance per million parts of a solution.

ppb: Parts per billion or micrograms per liter (ug/l). One part substance per billion parts of a solution.

ppt: Parts per trillion or nanograms per liter (ng/l). One part substance per trillion parts of a solution.

P-Ci/l: Picocuries per liter. This is a measure of radioactivity.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other actions by the water provider. This term is typically limited to discussions of lead and copper concentrations.

Standard Units (S.U.): This is a measure of pH.

N/A: Not applicable.

<: Less than.

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Should you have any further questions, please contact our Environmental Compliance Specialist at **977-4511, ext. 119,** or by email at **tbrown@serviceauthority.org.**