

TOWN OF ELKTON
100 Railroad Avenue
Elkton, Maryland 21921



TOWN OF ELKTON
2023 Annual Drinking Water Quality Report
Town of Elkton, Cecil County, Maryland

2023 Annual Drinking Water Quality Report Town of Elkton, Cecil County, Maryland

Mayor Robert Alt and the Commissioners of the Town of Elkton are pleased to present the *2023 Annual Drinking Water Quality Report* to our citizens and water service customers in the Elkton community. This report is intended to inform you about the quality of our drinking water, and to assure you that we are providing a safe and reliable supply of drinking water to our residents, our business community, and our other customers.

The Town of Elkton's drinking water is derived from three (3) sources: 1) surface water from the Big Elk Creek; 2) groundwater from deep within the Potomac aquifer; and 3) an Interconnection with Artesian Water Maryland, Inc. Water from the Big Elk Creek, a perennial stream supplying the Elkton Water Treatment Plant (*MD0070011*) is chemically treated, filtered, and disinfected, then pumped into the Town's distribution system, which includes both pipelines to all developed areas within the town and storage facilities that reserve water for times of peak demand and for emergency fire-fighting needs. Groundwater is obtained from four wells (*Well 1R-CE944619, Well 2R-CE100297, Well 3-CE045556, Well 5-CE130053*), *only requiring minimal treatment*, then pumped into the distribution system. A source water assessment was performed by the Maryland Department of the Environment (MDE) and is available on their website, mde.maryland.gov. The Interconnection with Artesian Water Maryland provides supplemental water from Artesian Water Company (*CC-DE0000552-TP99*), about 14.56 % of our total daily distribution, which is derived from over fifty wells throughout New Castle County, along with water Artesian purchases from the Chester Water Authority and the City of Wilmington. Important information from the Artesian Water Quality Report is included with this report. The Artesian report, in its entirety, can also be obtained by calling Artesian at (302) 453-6930 or viewing the report on Artesian's website at www.artesianwater.com.

The Town's water treatment plant, its wells, and related facilities are operated and maintained under a contract with Inframark. Inframark responsibly oversees the treatment and distribution of drinking water throughout the town, as well as monitoring water quality and sampling from the distribution system to determine and ensure compliance with all Federal and State drinking water quality standards. Elkton's drinking water meets all Federal and State treatment and quality standards. The information presented in this report and the report from Artesian Water Maryland demonstrate that Elkton's drinking water does not contain contaminants at levels that are harmful to the public. This report further outlines water quality with respect to specific contaminants present or potentially present in Elkton's drinking water, and includes technical information collected and reported to the Maryland Department of the Environment during 2023.

SUMMARY

The sources of public drinking water (tap and bottled) include rivers, lakes, streams, ponds, reservoirs, springs and wells, and are subject to potential contamination by substances that are naturally occurring or manmade in origin. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or the result of urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems; and Radioactive Contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. More information about the potential human health effects by contaminants in public drinking water and information relating to the Safe Drinking Water Act can be obtained by contacting the U.S. Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791 or via the Internet at www.epa.gov/drink/index.cfm In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

For nitrates and other contaminants that were detected at levels lower than the allowable MCL, it is important to understand that the EPA has determined that drinking water is safe at these allowable levels. To experience the possible health effects described for many of the regulated constituents a person would have to drink two liters of water every day containing a constituent at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Although the Town of Elkton adheres to all Federal and State regulations relating to the treatment, distribution and testing of drinking water to ensure a safe and dependent supply, some people may be more vulnerable to contaminants than the general population. An immune compromised person may be adversely affected by one or more contaminants in drinking water, e.g., a person undergoing chemotherapy, an organ transplant recipient, a person with HIV / AIDS or other immune system disorder, the elderly, and some infants who may be at risk for infections. These people should seek advice about drinking water and potential contaminants that could affect their health from a qualified and knowledgeable health care provider. More information about the potential health effects by contaminants in public drinking water may be obtained by contacting the United States Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791 or on the Internet at www.epa.gov/drink/index.cfm .

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien. (This report contains very important information about your drinking water. Translate it, or speak with someone who understands it).

If you have any technical questions regarding the 2023 Annual Drinking Water Quality Report, please contact the Town of Elkton, Administration Office, Elkton Municipal Building, 100 Railroad Avenue, Elkton, Maryland 21921 Telephone: (410) 398-0970 Facsimile: (410) 392-6633 Email: administration@elkton.org
TTY users should contact the Administration Office through the Maryland Relay Service at 711.

"The Town of Elkton's water resources are critical to the continuing health, prosperity and growth of our community. Consequently we will continue to strive toward the goals of maintaining the highest quality of water and developing additional sources to meet future demands. We encourage our residents and our business community to conserve and respect our most valued natural resource."

Mayor Robert J. Alt

A copy of Artesian Water Company's Water Quality Report for 2023 is included with this report, since Elkton purchases approximately 14.56 % of its daily water distribution from Artesian.

Annual Drinking Water Quality Report

MD0070011

TOWN OF ELKTON

Annual Water Quality Report for the period of January 1 to December 31, 2023
This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

For more information regarding this report contact:

Name Lewis H. George, Jr.

Phone (410) 398-0970

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

ToTOWN OF ELKTON is Surface Water

Sources of Drinking Water

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPAs Safe Drinking Water Hotline at (800) 426-4791.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised persons such as persons with cancer 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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. We are responsible for providing high quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

Source Water Information

SWA = Source Water Assessment

Source Water Name

Source Water Name	Type of Water	Report Status	Location	
BIG ELK CREEK	01-BIG ELK CREEK FILTER	SW	Y	<u>Town of Elkton</u>
CC-DE0000552-TP99	PURCHASED - DE0000552	GW	<u> </u>	<u>Artesian Interconnection Red Hill Road</u>
WELL 1R CE944619	CE944619	GW	Y	T OF ELKTON APPROX. 120 FT W OF NORMAN ALLEN ST
WELL 2R CE100297	CE100297	GW	<u> </u>	ELKTON APPROX. 100 FT N OF WALTER BOULDEN ST
WELL 3 CE045243	CE045243	GW	Y	ELKTON APPROX. 450 FT S OF RT 40
WELL 5 CE130053	CE130053	GW	<u> </u>	ELKTON APPROX. 600 FT S OF 284 PULASKI HWY

Lead and Copper

Definitions:

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Lead and Copper	Likely Source of Contamination
-----------------	--------------	------	-------------------	-----------------	-----------------	-------	-----------------	--------------------------------

Copper	08/26/2021	1.3	1.3	0.182	0	ppm	Copper	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
--------	------------	-----	-----	-------	---	-----	--------	---

Water Quality Test Results

Definitions:

The following tables contain scientific terms and measures, some of which may require explanation.

Avg:

Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Contaminant Level or MCL:

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Level 1 Assessment:

A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Maximum Contaminant Level Goal or 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.

Level 2 Assessment:

A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Maximum residual disinfectant level or MRDL:

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum residual disinfectant level goal or 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.

na:

not applicable.

mrem: millirems per year (a measure of radiation absorbed by the body) ppb: micrograms per liter or parts per billion - or one

ounce in 7,350,000 gallons of water. ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Water Quality Test Results

Treatment Technique or TT:

A required process intended to reduce the level of a contaminant in drinking water.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	2023	1.3	1.1 - 1.3	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2023	27	25 - 31	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	53	42.9 - 67.7	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Nitrate [measured as Nitrogen]	2023	4	2.52 - 3.94	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Beta/photon emitters	2023	6.1	5.5 - 6.1	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228	2023	2.2	0.6 - 2.2	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	2023	5	0 - 5	0	15	pCi/L	N	Erosion of natural deposits.

Turbidity

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1.0 NTU	0.1 NTU	N	Soil runoff.

Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.
--------------------------------	---------	------	---	--------------

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

PFAS – short for per- and polyfluoroalkyl substances – refers to a large group of more than 4,000 human-made chemicals that have been used since the 1940s in a range of products, including stain- and water-resistant fabrics and carpeting, cleaning products, paints, cookware, food packaging and fire-fighting foams. These uses of PFAS have led to PFAS entering our environment, where they have been measured by several states in soil, surface water, groundwater, and seafood. Some PFAS can last a long time in the environment and in the human body and can accumulate in the food chain.

The Maryland Department of the Environment (MDE) conducted a PFAS monitoring program for Community Water Systems from 2020 to 2022. The results are available on MDE's website: <https://mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx>.

The Environmental Protection Agency (EPA) proposed regulations for 6 PFAS compounds in drinking water in March 2023. The MCLs for PFOA and PFOS are proposed to be 4.0 parts per trillion (ppt). The proposal for HFPO-DA (GenX), PFBS, PFNA and PFHxS is to use a Hazard Index of 1.0 (unitless) to determine if the combined levels of these PFAS pose a risk and require action.

The 5th Unregulated Contaminant Monitoring Rule (UCMR5) began testing for 29 PFAS compounds and lithium in 2023, and testing will run through 2025. The UCMR5 should test all community water systems with populations of at least 3300 people. Three randomly selected systems in Maryland with populations less than 3300 people will also be tested under the UCMR5. Detections greater than the minimum reporting levels for each constituent should be reported in the CCR.

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. Elkton Water Treatment Plant 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 plumbing and 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 Gary Gutierrez at Elkton Water Treatment Plant at (410) 932-0711 Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

Artesian Water Company Water Quality Report for 2023

ARTESIAN WATER COMPANY • 664 CHURCHMANS ROAD • NEWARK, DELAWARE 19702

PWSID# DE0000552

SPRING 2024

Superior Water Quality

We are pleased to present our annual Water Quality Report for 2023. Each spring this report is published in accordance with the requirements of the United States Environmental Protection Agency (EPA) and the Delaware Division of Public Health (DPH). The Water Quality Report interprets our monitoring and testing data from 2023 and provides valuable information relating to the quality of your water. We are proud to report that the water you receive from Artesian again fully complies with national and state drinking water standards.

Since 1905, Artesian has provided high quality water and superior service to customers throughout the Delmarva Peninsula. Artesian crews work around the clock to monitor water quality and supply. Our treatment process includes disinfection, various filtration processes, pH adjustment, and corrosion control as needed to ensure our water systems are meeting all state and federal regulations. In addition to treatment, we invested nearly \$290,000 in water quality monitoring and compliance testing by EPA-certified labs and experts in our internal laboratory. Artesian routinely monitors to make certain our water quality is in full compliance with all standards.

We encourage you to take the time to review this report. If you have any questions about this report or the quality of your tap water, call us at (302) 453-6930 or (800) 332-5114. Our Customer Service Representatives and our Water Quality Department are ready to assist you.

This report is also available on our website at www.artesianwater.com.

As always, it is our pleasure to serve you.



Artesian Water Company

WATER QUALITY REPORT

Information concerning
public water system

DE0000552



www.epa.gov/watersense/

A Safe Water Source

The Artesian Water Company public water system is supplied with water from 67 wells located throughout New Castle County. These wells are in the Columbia, Potomac, Cockeysville Marble and Mount Laurel formations. Our ground water wells use the natural filtering capability of the aquifer to remove harmful bacteria and other substances from the water. These wells are located in mostly confined aquifers that provide additional protection from surface-borne contaminants. The treatment stations in the Artesian Water Company water system use the best available technology to ensure that the water we are providing is in compliance with all Environmental Protection Agency (EPA) and State Division of Public Health water quality parameters. Regular testing also helps us ensure high quality.

In 2023, we purchased an average of 0.54 million gallons per day of surface water from the Chester Water Authority, an additional 0.12 million gallons per day of surface water from the City of Wilmington and a total of 4.58 million gallons of water over the course of the year from the City of New Castle Municipal Services Commission. The Chester Water Authority's supply comes from the Susquehanna River basin, while the City of Wilmington's supply comes from the Brandywine River basin. You can view the water quality report for Chester Water Authority at <https://chesterwater.com/CCR2023.pdf>

The City of Wilmington's water quality report can be found at <https://www.wilmingtonde.gov/government/city-departments/departments-of-public-works/water-quality-reports>.

The City of New Castle Municipal Services Commission's water quality report can be viewed at <https://newcastlemsc.delaware.gov/consumer-confidence-reports/>

The Division of Public Health, in conjunction with the Department of Natural Resources and Environmental Control, has conducted source water assessments for nearly all community water systems in the state of Delaware. The assessments show that the sources are considered very low to very highly susceptible to contaminants entering the untreated water supply. The Source Water Assessment report can be found on the Delaware SWAPP website www.delawaresourcewater.org/assessments or contact Artesian's Water Quality Department at (302) 453-6900 to obtain a copy.

Emerging Contaminants and Proactive Treatment

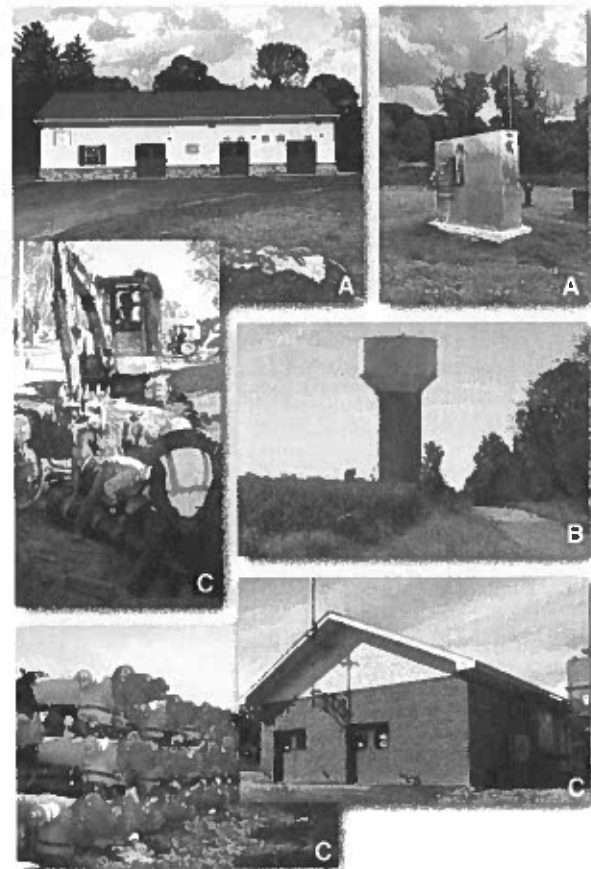
Artesian takes water quality seriously. To ensure the quality of the water being provided to our customers, we take extra precautions, including proactive testing and treatment when necessary for emerging and unregulated contaminants. Artesian's water comes from multiple sources and through an interconnected water system. We routinely monitor our groundwater sources and are capable of shutting down wells to install new treatment when necessary, without any interruption in service. Our rigorous testing program includes daily sampling throughout our system to ensure all treatment processes are working properly and that high-quality water is being provided to our customers.



As water quality has become an increasing priority nationwide, the regulatory landscape has evolved. For over 115 years, Artesian has made delivering reliable, secure, high-quality water to customers one of our highest priorities. Advancements in technology and continued analysis have significantly lowered previously acceptable levels of regulated contaminants, and a variety of new contaminants have been added to the list of constituents requiring treatment and removal. The most notable of the newly regulated contaminants are the family of chemicals known as per- and polyfluoroalkyl substances, commonly referred to by the acronym PFAS.

The proactive approach we take to testing and treating for PFAS is clear evidence of our commitment to providing high-quality water to customers. Artesian has been at the forefront of addressing PFAS, having tested for it since 2013 and treating when necessary. On April 10, 2024, the U.S. Environmental Protection Agency announced new regulations for the treatment of several PFAS compounds, with a compliance deadline in 2029. We are well positioned to meet this deadline. In 2023, Artesian invested \$3.9 million in water treatment for PFAS at an additional three facilities, bringing our total number of treatment plants capable of removing PFAS to ten. We will add treatment to three more facilities in 2024.

From Water Source to the Tap



In 2023 Artesian Water Company, Inc. invested \$54 million in critical infrastructure improvements, strategically enhancing existing supply and reliability and providing the capacity to meet projected future growth. As part of these strategic investments, we placed into service a new treatment plant in northern New Castle County, Delaware. This treatment plant, capable of producing one million gallons of water per day (MGD), is part of our already successful strategy to reduce purchased water expenses from the Chester Water Authority. This new treatment plant utilizes higher quality well water at a lower cost for customers as opposed to purchased surface water. Artesian has placed into service a new well in this area and an additional one is underway, totaling 1.1 MGD, to enhance our self-sufficiency while further reducing our purchased water expenses. (A)

We are always excited to see new business and industry come to our service area. To meet the increased demands, we sometimes need to make significant infrastructure improvements. In 2023, Artesian completed the construction of a new elevated tank, providing an additional 1 million gallons of water storage to serve the rapidly growing southern New Castle County region. (B) We also completed two additional wells in that area, providing an additional 1.2 MGD of water, to ensure that we meet rising water demand in this rapidly developing part of our system. Moreover, throughout 2023, we continued our proactive water main replacement program, with nearly 6.0 miles of main and 416 services and replacing 41 fire hydrants. (C).

SAVE WATER



KIDS CORNER

Clean water is one of our most precious natural resources. Artesian knows how valuable water is, and how important it is for all of us to conserve, now and in the future. Teaching the next generation about the water cycle and ways to conserve in your home or garden can be both educational and entertaining.

Check out the links below to access some fun facts and interactive games.

<https://drinktap.org/Kids-Place>

<https://wateruseitwisely.com/kids/>

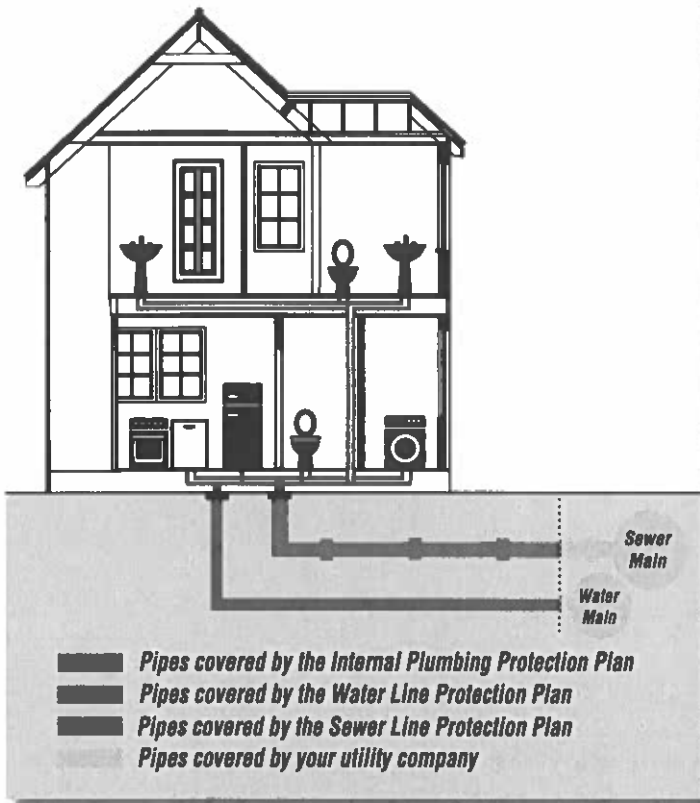
<https://www.epa.gov/watersense/watersense-kids>

Service Line Protection Plans

We encourage all of our customers to enroll in our Water, Sewer, and Internal Plumbing Protection Plans. Nearly 25% of our customers are currently enrolled in the water service line protection plan and 20% have enrolled in the sewer line protection plan since we began offering them in 2007.

As a homeowner, you are responsible for the maintenance of the water and sewer lines that run from your house to the street, as well as all of the internal water and wastewater pipes within your home. Clogs, breaks, blockages from tree roots, and even pipe collapses can and do happen without warning. Pipes that become clogged can backup systems with raw sewage causing major inconvenience, while breaks and collapses can harm the environment and be expensive and unpleasant to clean-up.

Customers who are informed and prepared contribute to protecting water resources that we all enjoy through responsible care for pipes. Artesian's Service Line Protection Plans guarantee an added peace of mind of water, sewer, and internal plumbing protection that can help cover the unexpected costs of repairing and replacing internal wastewater pipes, leaking water lines, and pipe collapses to sewer lines that could cost you thousands of dollars!



The Plans are Easy, Affordable and Convenient

- Emergency expert service repairs around-the-clock, managed by an experienced Artesian team
 - No deductible or hidden service fees
 - No negotiating with contractors or plumbers
 - Easy monthly billing added to your existing water bill

Water Line Protection Plan - \$5.99/month

Sewer Line Protection Plan - \$11.50/month

Internal Plumbing Protection Plan - \$10.99/month

Enroll online at: www.artesianwater.com Or call: 302.453.6930



Artesian Water Company Water Quality Report for 2023

PWSID# DE0000552

The United States Environmental Protection Agency (EPA) prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during 2023. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and, in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

	Unit of Measure	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level Detected	Range of Level Detected	Year Sampled	Violation?	Likely Source of Contamination
Inorganic Contaminants								
Barium	ppm	2	2 ¹	0.215	nd – 0.215	2023	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	ppb	100	100 ¹	9	nd – 9	2023	No	Discharge from steel and pulp mills; Erosion of natural deposits.
Cyanide, Free	ppm	200	200 ¹	11	nd – 11	2023	No	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Fluoride	ppm	2	2 ¹	1.08	nd – 1.08	2023	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nickel	ppb	100	100 ¹	7	nd – 7	2023	No	Erosion of natural deposits.
Nitrate ²	ppm	10	10 ¹	7.36	nd – 7.36	2023	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	ppb	50	50 ¹	5	nd – 5	2023	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.

Volatile Organic Contaminants

Methyl-t-butyl Ether (MTBE)	ppb	10	0	1.0	nd – 1.0	2023	No	Gasoline additive.
-----------------------------	-----	----	---	-----	----------	------	----	--------------------

Radiological Contaminants

Gross Alpha	pCi/l	15	0	5.1	nd – 5.1	2019	No	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Radium, combined	pCi/l	5	0	4.3 ³	0.4 – 4.9 ⁴	2023	No	Erosion of natural deposits.

Disinfection/Disinfection By-Products

Chlorine (free and total)	ppm	4(MRDL)	4(MRDLG) ⁵	3.18	0.03 – 3.18	2023	No	Disinfectant used in drinking water industry.
Halooetic Acids, total	ppb	60		6.61 ³	nd – 34.90 ⁴	2023	No	By-product of drinking water chlorination.
Trihalomethanes, total	ppb	80		20.62 ³	1.00 – 51.20 ⁴	2023	No	By-product of drinking water chlorination.

Lead & Copper⁶

	Unit of Measure	Action Level (AL)	MCLG	90th Percentile	No. of Sites Over AL	Year Sampled	Violation?	Likely Source of Contamination
90th Percentile Lead	ppb	15	0	1	0	2023	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
90th Percentile Copper	ppm	1.3	1.3 ¹	0.247	0	2023	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.



Artesian Water Company Water Quality Report for 2023

PWSID# DE0000552

	Unit of Measure	MCL	MCLG	Average Level Detected	Range of Level Detected	Year Sampled	Violation?	Likely Source of Contamination
Unregulated Contaminants								
Alkalinity, total	ppm	n/r		82	23 – 250	2023	n/a	
Conductivity	umhos	n/r		391	71 – 822	2023	n/a	
Hardness, Calcium	ppm	n/r		73	25 – 191	2023	n/a	
Hardness, Total	ppm	n/r		113	26 – 359	2023	n/a	
Perfluorooctanoic acid (PFOA) ⁷	ppt	n/r		9	nd – 31	2023	n/a	
Perfluorooctanesulfonic Acid (PFOS) ⁷	ppt	n/r		4	nd – 25	2023	n/a	
Phosphate, total	ppm	n/r		1.55	0.07 – 2.98	2023	n/a	
Sodium	ppm	n/r		30.9	4.8 – 84.6	2023	n/a	
Total Organic Carbon (TOC)	ppm	n/r		0.31	nd – 0.76	2023	n/a	

	Unit of Measure	State SMCL	Average Level Detected	Range of Level Detected	Year Sampled	Violation?	Likely Source of Contamination
Delaware Secondary Contaminants							
Aluminum	ppb	50 – 200	nd	nd – 23	2023	n/a	
Chloride	ppm	250	59	nd – 164	2023	n/a	
Iron	ppm	0.3	0.04	nd – 0.30	2023	n/a	
Manganese	ppm	0.05	0.029	nd – 0.065	2023	n/a	Short-term fluctuations related to manganese removal treatment.
pH, Field	0 - 14 scale	6.5 – 8.5	7.33	6.24 – 10.91	2023	n/a	Short-term fluctuations related to treatment processes.
Solids, total dissolved	ppm	500	212	38 – 409	2023	n/a	
Sulfate	ppm	250	21.1	nd – 61.3	2023	n/a	
Zinc	ppm	5	0.081	nd – 0.282	2023	n/a	

NOTES FOR ALL CONTAMINANTS

- Although EPA sets the "goal" at the same level as the maximum contaminant level for these contaminants, Artesian Water strives to maintain levels lower than the MCL.
- Nitrate [measured as Nitrogen] - Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.
- Highest 4-quarter average of samples collected and used by the State Division of Public Health for compliance.
- Range includes all samples tested for, whereas highest level detected is based upon the highest 4-quarter average.
- The U.S. Environmental Protection Agency sets the MRDLG for chlorine residual at 4 parts per million (ppm). Artesian Water strives to meet a range between 0.5 ppm and 3 ppm.
- Under the Lead and Copper Rule, we sample for these contaminants once every 3 years
- Currently there is no MCL. EPA has issued a Health Advisory Level of 70 parts per trillion (ppt). EPA's health advisory levels were calculated to offer a margin of protection against adverse health effects. On April 10 2024, EPA announced Maximum Contaminant Levels (MCLs) of 4 ppt for PFOA and 4 ppt for PFOS, and a Group Hazard Index for four additional PFAS compounds. This MCL will go into effect starting in 2029.

Definitions of Terms

90TH PERCENTILE — the 90th highest reading (out of a total of 100 samples), which is used to determine compliance with the Lead and Copper Rule.

ACTION LEVEL — the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MAXIMUM CONTAMINANT LEVEL (MCL) — the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible 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 highest level of a disinfectant in drinking water. There is convincing evidence that addition of a disinfectant is necessary for the 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 health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NEPHELOMETRIC TURBIDITY UNIT (NTU) — a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

SECONDARY MAXIMUM CONTAMINANT LEVEL (SMCL) — non-enforceable guideline which is not directly related to public health, commonly associated with cosmetic or aesthetics within the water.

NOT DETECTED (ND) — laboratory analysis indicates that the constituent is not present.

NOT REGULATED (N/R) — no MCL identified because these substances are unregulated.

PARTS PER MILLION (PPM) — 1 part per million corresponds to 1 minute in 2 years or a single penny in \$10,000.

PARTS PER BILLION (PPB) — 1 part per billion corresponds to 1 minute in 2,000 years, or a single penny in \$10,000,000.

PARTS PER TRILLION (PPT) — 1 part per trillion corresponds to 1 minute in 2,000,000 years, or a single penny in \$10,000,000,000.

PICOCURIES PER LITER (PCI/L) — a measure of the radioactivity in water.

Expected Substances In Drinking 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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

If You Have A Special Health Concern

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer 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 from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

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 home plumbing. Artesian is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Radon, Cryptosporidium & Giardia

Radon is a radioactive gas that is found in nearly all soils. It typically moves up through the ground to the air and into homes through the foundation. Drinking water from a ground water source can also add radon to the home air. The EPA indicates that, compared to radon entering the home through soil, radon entering the home through water will in most cases be a small source of risk. The EPA and the State of Delaware have not yet set standards for monitoring radon in drinking water, although we do expect sampling to become mandatory in the near future. Artesian Water Company is keeping a close eye on the situation and will be sure to comply with any new regulations as required.

Cryptosporidium and *Giardia* parasites have been known to contaminate drinking water reservoirs of surface water treatment plants. Water purchased by Artesian from the Chester Water Authority and the City of Wilmington are surface water supplies. Both have tested for these parasites and have found no problems in their treated water product.

Monitoring Waivers

The Artesian Water Company public water system currently has a waiver for asbestos monitoring due to non-detectable results from 1995 sampling. The State of Delaware's Office of Drinking Water will be conducting new sampling to determine whether this waiver will be continued.

Artesian Water Service Facts

Population Served	approximately 301,000
Metered Customers	98,500
Annual Production	8.8 billion gallons
Miles of Main	1,470
Active Wells	218
Treatment Facilities	75
Storage Capacity	177.5 million gallons
Water Service Territory	308 square miles
Wastewater Service Territory	59 square miles
Average Cost Per Day for Residential Water Service	\$1.64

If you have any questions about the contents of this report, please call Artesian at (302) 453-6930,

toll free at 1 (800) 332-5114

or email at custserv@artesianwater.com.

Our Customer Service Representatives and Water Quality Department are ready to assist you.

More information about Artesian is available at our website:

www.artesianwater.com.

Landlords, apartment managers, businesses, schools, etc. should share this information with others who might not receive this information directly.

Consider posting the information in a public place or advise others that the report is available by contacting Artesian by phone or online at www.artesianwater.com.

Artesian Water Company
664 Churchmans Road
Newark, DE 19702

