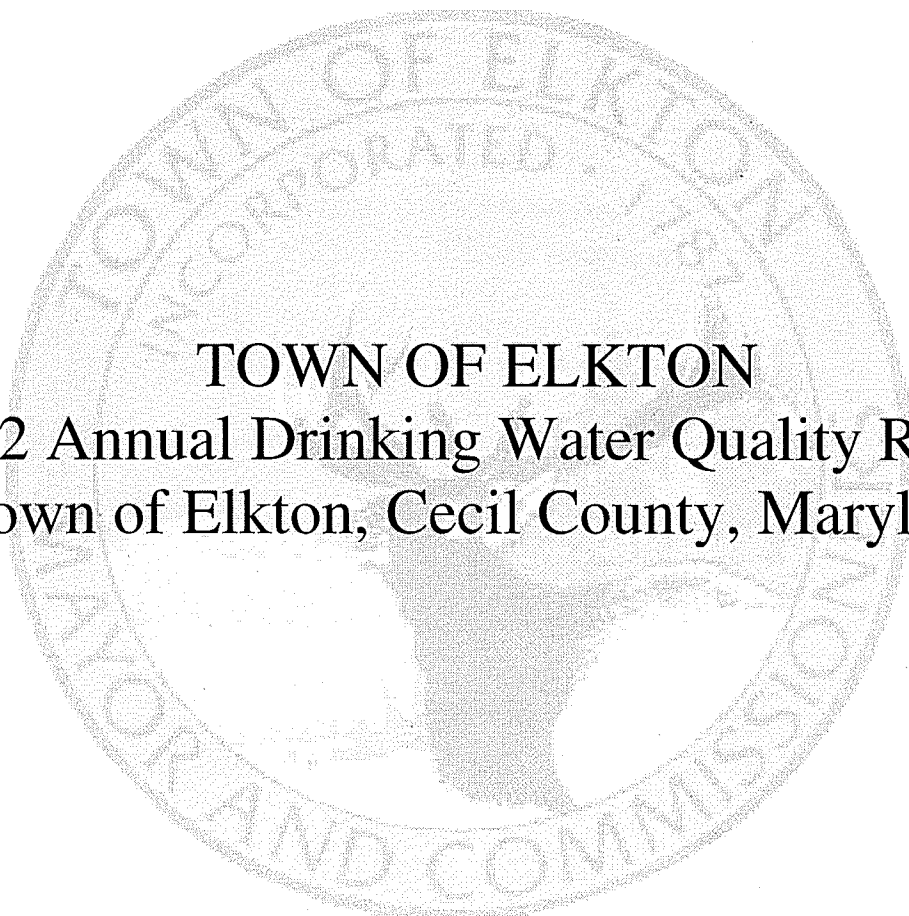


TOWN OF ELKTON
100 Railroad Avenue
Elkton, Maryland 21921



TOWN OF ELKTON
2022 Annual Drinking Water Quality Report
Town of Elkton, Cecil County, Maryland

2022 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 *2022 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 2022.

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 2022 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 2022 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, 2022

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

TOWN OF ELKTON is Surface Water

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

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 EPA's 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		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>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	_____	ELKTON APPROX. 100 FT N OF WALTER BOULDEN ST
WELL 3 CE045556	CE045556	GW	Y	ELKTON APPROX. 450 FT S OF RT 40
WELL 5 CE130053	CE130053	GW	_____	ELKTON APPROX. 600 FT S OF 284 PULASKI HWY

2022 Regulated Contaminants Detected

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	2022	1.2	1.1 - 1.2	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	11/10/2021	52	22 - 52	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	11/10/2021	53.5	20.1 - 53.5	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]	2022	3	2 - 3.4	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	03/17/2020	9.1	0 - 9.1	0	50	pCi/L	N	Decay of natural and man-made deposits.
Combined Radium 226/228	03/17/2020	4.6	0.8 - 4.6	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon and uranium	03/17/2020	8.4	0 - 8.4	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	0.092 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 – or 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. Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. PFOA and PFOS are two of the most prevalent PFAS compounds. PFOA and PFOS concentrations from samples taken from our water system in 2022 was 21.8 parts per trillion (ppt) and 6.71 ppt, respectively. In March 2023, EPA announced proposed Maximum Contaminant Levels (MCLs) of 4 ppt for PFOA and 4 ppt for PFOS, and a Group Hazard Index for four additional PFAS compounds. Future regulations would require additional monitoring as well as certain actions for systems above the MCLs or Hazard Index. EPA will publish the final MCLs and requirements by the end of 2023 or beginning of 2024. Additional information about PFAS can be found on the MDE website: mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx

Unregulated Contaminants Table

PFAS Contaminant	Units	Year	Highest Value	Range
PFOS	ppt	2022	6.71	1.05-6.71
PFNA	ppt	2022	2.33	nd-2.33
PFHxS	ppt	2022	4.22	nd-4.22
PFOA	ppt	2022	21.8	3.33-21.8
PFBS	Ppt	2022	5.97	2.98-5.97

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 the Elkton Water Treatment Plant at (410) 392-0711. 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>.



Meadowview / Elkton West Water Quality Report for 2022

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

PWSID# MD0070015

SPRING 2023

Superior Water Quality

We are pleased to present our annual Water Quality Report for 2022. Each spring this report is published in accordance with the requirements of the United States Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE). The Water Quality Report interprets our monitoring and testing data from 2022 and provides valuable information relating to the quality of your water supply. 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 systems meet all applicable state and federal regulations. In addition to treatment, we regularly invest in water quality monitoring and compliance testing by EPA-certified labs and experts in our internal laboratory. Artesian routinely monitors constituents to ensure our water quality is in full compliance with all applicable standards.

We encourage you to take the time to review the report. If you have any questions about this report or the quality of your tap water, call us at (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.



Meadowview/ Elkton West

WATER QUALITY REPORT

Information concerning
public water system

MD0070015



www.epa.gov/watersense/

A Safe Water Source

Meadowview / Elkton West public water system is supplied with water from one (1) well located in Cecil County and water purchased from Artesian Water Company's (Delaware) system. The groundwater well is located in the Patuxent formation and use the natural filtering capability of the aquifer to remove harmful bacteria and other substances from the water. The treatment plant at Meadowview / Elkton West uses the best available technology to ensure that we are providing water that is in compliance with all Environmental Protection Agency (EPA) and the Maryland Department of the Environment (MDE) water quality parameters. Regular testing also helps us ensure high quality. The water purchased from Artesian Water Company's (Delaware) system is primarily ground water and supplemented by surface water. The water quality report for the Artesian Water Company (Delaware) system can be viewed at <https://www.artesianwater.com/wp-content/uploads/wqawc2022.pdf> once available online beginning July 1, 2023.

We also maintain an emergency interconnection from Veolia Water Delaware (formerly Suez Water Delaware), which operates a surface-water treatment plant in Stanton, Delaware. Veolia Water's supply comes from the White Clay and Red Clay Creeks. You can view Veolia's Water quality report for 2022 which will be available beginning July 1, 2023.

This purchased water meets all applicable state and federal regulations, and is used to augment our supply. Further evaluation of the state's water supply is made available by the (MDE), through a program designed to assess the susceptibility of public water sources to contamination. MDE's source water assessment plan has been completed and approved by the EPA. Copies can be obtained by contacting Artesian's Water Quality Department at (800) 332-5114 or you can view copies online at the MDE's Source Water Assessment Reports website at:

https://mde.maryland.gov/programs/Water/water_supply/Source_Water_Assessment_Program/Pages/index.aspx

Emerging Contaminants and Proactive Treatment

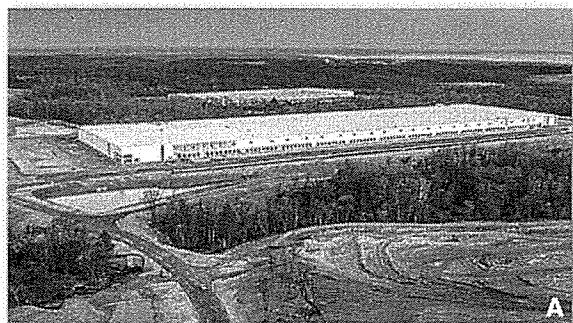
Artesian takes water quality seriously. To ensure the quality of the water being provided to our customers, we take extra precautions, including proactive testing and treatment when necessary for emerging and unregulated contaminants. Artesian water comes from multiple sources and through an interconnected 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.



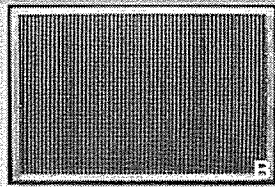
As water quality has become an increasing priority nationwide, the regulatory landscape has evolved. For over 115 years, Artesian has made delivering safe, secure, high-quality water to customers one of our highest priorities. Advancements in technology and continued analysis have significantly lowered 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.

For nearly 10 years, Artesian has been at the forefront of the effort to remove PFAS from water sources. As early as 2013, we conducted rigorous sampling of our sources and began installing treatment capable of removing PFAS. The U.S. Environmental Protection Agency published its proposed PFAS maximum contaminant levels for drinking water in March 2023. Artesian is ahead of the curve, with treatment in place at many of our facilities and several additional projects in progress to install treatment at sites with PFAS levels above the newly proposed standards.

From Water Source to the Tap



Enhancing Artesian's ability to deliver high-quality, reliable water service has remained a primary objective in Cecil County. Our efforts continue to play a critical role in the area's economic development. In 2022, the U.S. Navy's former Bainbridge Naval Training Center site off I-95 was reactivated for development. This 1,200-acre site, which sits above the town of Port Deposit, has been inactive since the Navy decommissioned it in 1976, but it is now being returned to use through commercial and industrial development. **(A)**



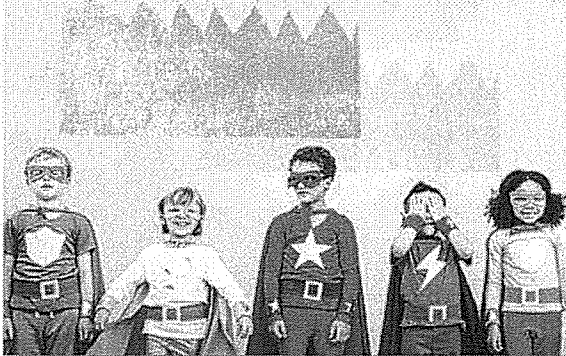
A milestone for Artesian Maryland is the completed installation of a new water intake screen located on the Susquehanna River at our Port Deposit treatment plant. **(B)** We also finished rehabilitating an existing booster station and installing water mains to serve Phase I of development of the Bainbridge site. Phase I is planned to total 3.75 million square feet of industrial/logistic space on 450 acres.



Further expansion of the Principio Business Park, **(C)** located between North East and Perryville, is planned upon completion of a new I-95 highway interchange at Belvidere Road, which will be a gateway for continued business activity in Cecil County's designated growth corridor. Groundbreaking on the interchange took place in 2022, and construction is expected to be completed in 2025. To ensure reliable water service as expansion continues at the Principio Business Park, we have moved forward with development of additional wells, which will be placed in service upon issuance of allocation permits by the Maryland Department of the Environment.

KIDS CORNER

SAVE WATER



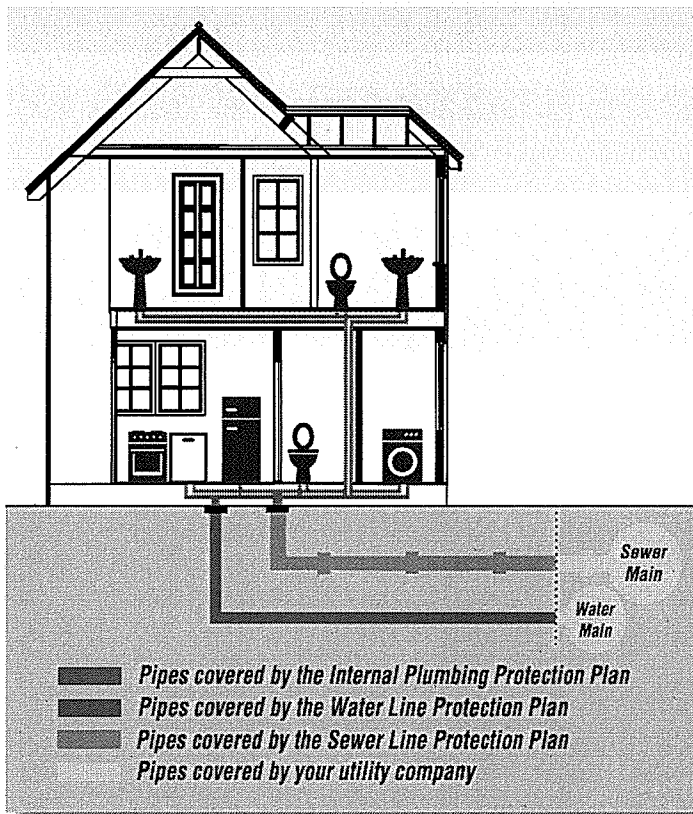
Clean water is one of our most precious natural resources. Artesian knows how valuable water is, and how important it is for all of us to conserve, now and in the future. Teaching the next generation about the water cycle and ways to conserve in your home or garden can be both educational and entertaining.

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 nearly 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 cleanup.

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



Meadowview / Elkton West Water Quality Report for 2022

PWSID# MD0070015

In order to ensure that tap water is safe to drink, 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. 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 Low - High	Sample Date	Violation ?	Likely Source of Contamination
Inorganic Contaminants								
Barium	ppm	2	2 ¹	0.104	0.104	2022	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Nitrate ²	ppm	10	10 ¹	7.54	7.28 - 7.54	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

	Unit of Measure	MCL	MCLG	Highest Level Detected	Range of Level Detected Low - High	Sample Date	Violation ?	Likely Source of Contamination
Radiological Contaminants								
Beta/Photon emitters	pCi/l	50	0	6	6	2020	No	Decay of natural and man-made deposits.
Gross Alpha	pCi/l	15	0	4.6	4.6	2020	No	Erosion of natural deposits.
Radium, combined	pCi/l	5	0	3.6	3.6	2020	No	Erosion of natural deposits..

	Unit of Measure	MCL	MCLG	Highest Level Detected	Range of Level Detected Low - High	Sample Date	Violation ?	Likely Source of Contamination
Disinfection/Disinfection By-Products								
Chlorine (free)	ppm	4 (MRDL)	4 (MRDLG) ³	1.99	0.78 - 1.99	2022	No	Water additive used to control microbes.
Haloacetic Acid, total	ppb	60		1.27 ⁴	nd - 3.43 ⁵	2022	No	By-product of drinking water chlorination.
Trihalomethanes, total	ppb	80		6.45 ⁴	1.4 - 13.7 ⁵	2022	No	By-product of drinking water chlorination.

	Unit of Measure	SMCL	Average Level Detected	Range of Level Detected Low - High	Sample Date	Violation ?	Likely Source of Contamination
Secondary Contaminants							
Chloride	ppm	250	90	90	2016	n/a	
Iron	ppm	0.3	0.01	nd - 0.10	2022	n/a	
Manganese	ppm	0.05	0.027	0.027	2021	n/a	
pH, Field	0 - 14 scale	6.5 - 8.5	7.46	6.68 - 8.42	2022	n/a	

	Unit of Measure	Action Level (AL)	MCLG	90th Percentile	No. of Sites Over AL	Sample Date	Violation ?	Likely Source of Contamination
Lead & Copper⁶								
90th Percentile Lead	ppb	15	0	0	0	2020	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
90th Percentile Copper	ppm	1.3	1.3 ¹	0.262	0	2020	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.



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	Unit of Measure	MCL	Average Level Detected	Range of Level Detected Low - High	Sample Date	Violation ?	Likely Source of Contamination
Unregulated Contaminants							
Alkalinity, total	ppm	n/r	38.0	27.4 - 66.0	2022	n/a	
Conductivity	umhos	n/r	58	23 - 97	2022	n/a	
Hardness, Calcium	ppm	n/r	22	15 - 30	2022	n/a	
Nickel	ppb	n/r	8	6 - 9	2018	n/a	
Phosphate, total	ppm	n/r	2.43	1.42 - 4.14	2022	n/a	
Sodium	ppm	n/r	45.1	45.1	2021	n/a	
PFOS ^{7,8}	ppt	n/r	2.98	2.98	2022	n/a	
PFOA ^{7,8}	ppt	n/r	17.4	17.4	2022	n/a	
PFBS ^{7,8}	ppt	n/r	6.37	6.37	2022	n/a	
PFHxS ^{7,8}	ppt	n/r	1.71	1.71	2022	n/a	

Unit Descriptions

- ppm — Parts per million, or milligrams per liter (mg/L)
- ppb — Parts per billion, or micrograms per liter (µg/L)
- pCi/L — Picocuries per liter (a measure of radioactivity)
- ppt — Parts per trillion, or nanograms per liter (ng/L)
- umhos — Measurement of conductivity
- n/a — Not applicable
- nd — Not detected
- n/r — Monitoring not required, but recommended

Notes For All Contaminants

1. 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.
2. 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.
3. 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.
4. Highest 4-quarter average of samples collected and used by the State Department of the Environment for compliance.
5. Range includes all samples tested for, whereas highest level detected is based upon the highest 4-quarter average.
6. Under the Lead and Copper Rule, we sample for these contaminants once every 3 years.
7. Beginning in 2020, the Maryland Department of the Environment (MDE) initiated a PFAS monitoring program. PFOA and PFOS are two of the most prevalent PFAS compounds. PFOA and PFOS concentrations from samples taken from our water system in 2022 were 17.4 parts per trillion (ppt) and 2.98 ppt, respectively. In March 2023, EPA announced proposed Maximum Contaminant Levels (MCLs) of 4 ppt for PFOA and 4 ppt for PFOS, and a Group Hazard Index for four additional PFAS compounds. Future regulations would require additional monitoring as well as certain actions for systems above the MCLs or Hazard Index. EPA will publish the final MCLs and requirements by the end of 2023 or beginning of 2024. Additional information about PFAS can be found on the MDE website: mde.maryland.gov/PublicHealth/Pages/PFAS-Landing-Page.aspx
8. Upon notification of results, the affected well was removed from service.

Important Drinking Water Definitions

- MCLG — MAXIMUM CONTAMINANT LEVEL 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.
- MCL — MAXIMUM CONTAMINANT LEVEL:** 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.
- AL — ACTION LEVEL:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- MRDLG — MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL:** 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.
- MRDL — MAXIMUM RESIDUAL DISINFECTANT LEVEL:** 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.
- SMCL — SECONDARY MAXIMUM CONTAMINANT LEVEL:** Non-enforceable guideline which is not directly related to public health, commonly associated with cosmetic or aesthetics within the 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.

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. 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).

PFAS In Drinking Water

PFAS – or 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.

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

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.

Community Outreach and Education

People often want to learn more about their water, so Artesian is happy to provide speakers – free of charge – to community organizations, schools and other groups. Our staff of experienced employees can speak about topics such as conservation, water supply and treatment, and related subjects. We also offer our Water Conservation and Education Program to local schools! Visit our website for more information at www.artesianwater.com.

e-Billing

We offer a free e-billing service so you can view, print and pay your water bills online. Currently over 21,000 customers have enrolled in e-billing. If you have not enrolled yet, you can by visiting our website at <http://www.artesianwater.com/e-billing> or contacting our Customer Service Department.



It's easy being green.
Sign up for e-billing today!

If you have any questions about the contents of this report, please call Artesian toll free at (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.

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