2015 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 *2015 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 (*MD 0070011*) 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 two wells (*Well 1R-CE944619 and Well 3-CE045556*), *only requiring minimal treatment*, then pumped into the distribution system. The Interconnection with Artesian Water Maryland provides supplemental water from Artesian Water Company (*CC-DE0000552-TP99*), about 16.9% 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 Severn Trent Services. Severn Trent 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 enclosed report from Artesian Water Maryland, demonstrates 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 2015.

Definitions

This report contains the following technical terms and abbreviations that we feel should be defined in order to enhance the reader's understanding of the technical information presented in this report:

Action Level - the concentration of a contaminant, if exceeded, that triggers treatment or other requirements.

Maximum Contaminant Level - The maximum allowable level (MCL) of a contaminant in drinking water. MCLs are set as close to the maximum contaminant level goal (MCLG), q.v., 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 human health. MCLGs allow for a margin of safety.

Monitoring not required, but recommended (MNR) – unregulated contaminants not subject to MCL or MCLG.

Most probable number (MPN) – a value used to calculate coliform (bacteria) density.

Non-Detects (ND) - laboratory analysis indicated that a particular substance was not detected.

Nephelometric Turbidity Unit (NTU) – using a nephelometric meter, a specific unit of measurement for water clarity or turbidity, the lower the number indicating proportionately better clarity.

Parts per billion (ppb) *or micrograms per liter* – an amount indicating one part per billion parts; corresponding, e.g., to one minute in 2,000 years or one cent in $10,000,000.

Parts per million (ppm) *or milligrams per liter (mg/l)* – an amount indicating one part per one million parts; corresponding, e.g., to one minute in two years or one cent in $10,000.

Picocuries per liter (pCI/L) – a measure of radioactivity where one picocurie is one-trillionth of 37 billion disintegrations per second.

Treatment Technique (TT) – a water treatment process intended to reduce the level of contaminant(s) in drinking water.

DETECTED CONTAMINANTS NOT IN VIOLATION
OF THE MAXIMUM CONTAMINANT LEVEL
ELKTON WATER TREATMENT PLANT (PWSID 0070011)

Inorganic Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Level Detected**	**Unit of Meas**	**MCLG**	**MCL**	**Violation**	**Likely Source of Contamination**	**Regulated / Unregulated**
Barium		0.15	0.033 -0.15	ppm	2	2	N	Discharge of drilling waste/ metal refineries; Erosion of natural deposits	Regulated
Chromium		3.4	0 – 3.4	ppb	100	100	N	Discharge from steel and pulp mills, erosion of natural deposits	Regulated
Nitrate (measured as Nitrogen)		4.0	2.6 – 4.3	ppm	10	10	N	Fertilizer, septic tanks, erosion of natural deposits	Regulated
Radioactive Contaminants	**Collection Date**	**Highest Level Detected**	**Range of Level Detected**	**Unit of Meas**	**MCLG**	**MCL**	**Violation**	**Likely Source of Contamination**	**Regulated / Unregulated**
Beta Photon Emitters	02/28/2013	8.4	6 – 8.4	mrem/yr	0	4	N	Decay of natural and manmade deposits	Regulated
Combined Radium 226/228	02/28/2013	3.7	1.7 – 3.7	pCi/L	0	5	N	Erosion of natural deposits	Regulated
Gross Alpha excluding Radon and Uranium	02/28/2013	6.2	5.4 – 6.2	pCi/L	0	15	N	Erosion of natural deposits	Regulated

Lead and Copper
Definitions:
Action Level Goal (AGL): 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.

REGULATED CONTAMINANTS DETECTED

Contaminant	Collection Date	MCLG	ACTION LEVEL	90TH PERCENTILE	NUMBER OF SITES OVER ACTION LEVEL	Unit of Meas	Violation	Likely Source of Contamination	Regulated / Unregulated
Copper		1.3	1.3	0.278	0	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits	Regulated
Lead		0.00	0.015	< 0.001	0	ppm	N	Corrosion of household plumbing systems; erosion of natural deposits	Regulated

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. The Town of Elkton 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.

Contaminant	Date Collected	Highest Level Detected	Range of Level Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination	Regulated / Unregulated
Total Trihalomethane (TTHM) Stage 2		39	4.5 – 89.8	No goal for the total	80	ppb	N	By-products of drinking water disinfection	Regulated
Haloacetic Acids (HAA5) Stage 2		24	1.54 – 36	No goal for the total	60	ppb	N	By-products of drinking water disinfection	Regulated

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

DRINKING WATER TURBIDITY

Turbidity describes the relative clarity of water, ranging from perfectly clear and transparent to cloudy, hazy, or opaque. Turbidity in water is caused by suspended matter, such as clay, silt, finely divided organic and inorganic material, colored organic chemicals, algae and other microscopic organisms. Turbidity is measured by using a *nephelometric turbidity meter* (NTM), and measurements are expressed as *Nephelometric Turbidity Units (NTUs)*. The treatment and filtration of water at the Elkton Water Treatment Plant reduces turbidity to very low levels, detectible only to special electronic measuring devices, such as the NTM. The following table indicates turbidity monitoring at the Elkton Water Treatment Plant during 2015:

Turbidity	**Limit Treatment Technique**	**Level Detected**	**Units**	**Violation**	**Likely Source of Contamination**
Highest Single Measurement	1.0	0.34	NTU	N	Soil Runoff
Lowest Monthly % meeting limit	0.3	100%	NTU	N	Soil Runoff

It is important to understand that the detection of these substances in the drinking water does not constitute a known threat to public health because they were found only at levels less than the MCL, and below the level that EPA currently feels may constitute a health threat. MCL's are set at very stringent levels and the Town's water has proved to be below those levels for the contaminants listed above. As you can see by the table, our system had *no violations*. We are confident that your drinking water meets or exceeds all Federal and State requirements. Although some contaminants have been detected in finished water, the EPA has determined that your water **IS SAFE** at these levels.

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

Consumer Confidence Rule			
The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the system.			
Violation Type	Violation Begin	Violation End	Violation Explanation
CCR REPORT	07/01/2015	*	We failed to provide to you, our drinking water customers, an annual report prior to July 1, 2015, that informs you about the quality of our drinking water and characterizes the risks from exposure to contaminants detected in our drinking water. * Our system was returned to compliance on July 8, 2015 when the Maryland Department of the Environment received our Consumer Confidence Report

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 2015 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 2015 is included with this report, since Elkton purchases approximately 16.9% of its daily water distribution from Artesian.

TOWN OF ELKTON
100 Railroad Avenue
Elkton, Maryland 21921

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