ANNUAL DRINKING WATER QUALITY REPORT for 2022

East Kingston Water District
1 TOWN HALL DRIVE
LAKE KATRINE, NEW YORK 12449
PUBLIC WATER SUPPLY ID# NY5530260

Dear Customer,

To comply with state regulations, the East Kingston Water District will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and your awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system has never violated a maximum contaminant level. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact **John Rose, Water Superintendent at (845) 382-1833** or the **Ulster County Health Department at 845-340-3010.** If you would prefer contacting us via e-mail, our address is **watersewer@townofulster.org.** We want you to be informed about your drinking water. If you want to learn more, please attend any of the regularly scheduled Town Board meetings which are held on the third Thursday of each month at 7:00 p.m. at the Town Hall, 1 Town Hall Drive in Lake Katrine, New York.

WHERE DOES OUR WATER COME FROM?

In general, 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 can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations, which limit the amount of certain contaminants in water provided by public water systems. The State Health Department and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.
The East Kingston Water District purchases its water from the City of Kingston Water Department. The water is piped from the Cooper Lake in Woodstock to the Edmund T. Cloonan treatment plant. Treatment includes chlorine disinfection, in-line filtration with alum coagulation and corrosion control via the addition of alum. A copy of their annual water quality report can be made available by contacting the Ulster Water Department at the number listed above or by contacting the Kingston Water Department.

FACTS AND FIGURES:

Our system serves approximately 212 people through 85 service connections. The total amount of water purchased in calendar year 2022 was 4,705,952 gallons. Average daily usage was 12,893 gallons. The amount of water delivered to customers was 3,551,896 gallons. The highest single day total was 47,857 Gallons on February 7th. In 2022 there was an unaccounted for water loss total of approximately 25%. Unaccountable water loss can be attributed to various sources, such as but not limited to, water distribution leaks, main flushing, street sweeping and firefighting. In 2022 water rates were as follows: 1st 5000 gallons or any portion thereof $27.50; Over 5001 gallons $5.00 per thousand gallons or any portion thereof.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, your drinking water is tested for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. The table below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data though representative, may be more than a year old.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Result	Unit	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Nitrate as N	No	5/20/22	0.045	mg/L	10	MCL=10	Runoff from fertilizer use; leaching from septic tank sewage; erosion of natural deposits
Total Organic Carbon (TOC)	NA	2022	1.738 2.6 – 1.0	Mg/L	NA	NA	Naturally present in the environment and has no health effects. However TOC provides a medium for the formation of disinfection byproducts.
Barium[4]	No	05/20/22	0.0045	mg/L	2	MCL = 2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Lead [1]	No	09/23/2020	<1.0	ug/L	0	AL = 15	Corrosion of household plumbing
Copper [2]	No	9/23/2020	0.086 (.011-.13)	mg/L	1.3	AL= 1.3	Corrosion of household plumbing
Sulfate	No	07/15/2022	5.5	mg/L	N/A	MCL = 250	Naturally occurring
Manganese	No	7/15/22	11	ug/L	N/A	0.3	Naturally occurring; indicative of landfill contamination.
Chloride	No	7/15/22	6.0	mg/L	N/A	MCL = 250	Naturally occurring; indicative of road salt
Sodium	No	7/15/22	3.4	mg/L	N/A	N/A	Naturally occurring; indicative of road salt; animal contamination, water softeners
THM's **(5)** Trihalomethanes	No	8/24/2022 11/3/2022	96 89	ug/L	N/A	MCL =80	By-product of drinking water chlorination

HAA5's Haloacetic Acids	No	8/24/2022 11/3/2022	16.1 16.0	ug/L	N/A	MCL = 60	By-product of drinking water chlorination
Turbidity3	No	1/10/2022	0.36	NTU	N/A	TT = <1 NTU	Soil Runoff
Turbidity3	No	9/2022	0.14	NTU	N/A	TT = <1 NTU	
Turbidity3	No	2022	99.95%	NTU	N/A	TT= 95% of samples <0.3 NTU	

Notes:

1-The level presented represents the 90th percentile of the 4th and 5th ranked sample sites tested. The action level for lead was not exceeded at any of the five sites tested.

2- The level presented represents the 90th percentile of the 4th and 5th ranked sample sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at our water system. Out of the 5 samples that were collected the average of the 4th and 5th highest samples taken was 0.086mg/l. The action level for copper was not exceeded at any of the sites tested.

3- We test turbidity levels because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for 2022 was 0.36 NTU and occurred on January 10, 2022. State regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU and that **all** turbidities are below 1 NTU. During 2022, the KWD met these requirements. The highest monthly average was 0.14 NTU and occurred in September 2022. During 2022, 2,190 turbidity measurements were taken and the average turbidity reading was 0.10 NTU.

4-All of these substances were detected in trace quantities, many times lower than the maximum contaminant levels established for these substances. They were also detected BELOW the reportable detection limit for the substance. As such, KWD could have not listed these substances in this table as they were below the reportable detection limits. The KWD believes that as our consumers, you have a right to know the amount detected and we are reporting it.

5) We routinely monitor for the presence of drinking water contaminants. Testing results from the sample collected on 8/24/22 indicated that our system exceeds the standard, or maximum contaminant level (MCL), for TTHM's for the third Quarter, 2022. The standard for TTHM's is 80 ug/l. The sample taken on 8/24/22 had a TTHM level of 96 ug/l. We took a second sample on 11/3/2022 and had a TTHM level of 89 ug/L. At this time we will continue to do quarterly samples instead of a single yearly sample in 2023. For more information please see "**What does this information Mean**" below.

Definitions:

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as feasible.

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

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

Maximum Residual Disinfectant Level (MRDL): The highest level of a drinking water disinfection allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants. The Kingston Water Department disinfects with chlorine. The MRDL for chlorine is 4.0 mg/l. Kingston has never exceeded the MRDL.

Maximim Residual Disinfection Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants. The MRDLG for chlorine is 4 mg/l.

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

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

Milligrams per liter (mg/l) : Corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion – ppb).

It should be noted that all drinking water, including bottled drinking water, may be reasonably 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 (800-426-4791) or the Ulster County Health Department at 340 3010.

UNREGULATED CONTAMINANT MONITORING

The 1996 amendments to the Safe Drinking Water Act and the Fourth Unregulated Contaminant Rule (UCMR4) require that every five years water suppliers serving 3,300 or more customers monitor for up to 30 unregulated contaminants. The purpose of the rule is to provide baseline occurrence data that EPA can use to make decisions about future regulations. The Kingston Water Department participated in the fourth round of this testing beginning in 2019 and will conclude sampling in 2020. In UCMR4, testing was required for two metals, eight pesticides and one pesticide manufacturing byproduct, three brominated haloacetic acid (HAA) byproduct groups, three alcohols, three semi-volitile organic chemicals, and 10 cyanotoxins. The data from this most recent sampling can be found in Table of Detected Contaminants in this report. For more information about the Unregulated Contaminant Rule and to obtain a list of the unregulated contaminants, go to: http://water.epa.gov/lawsregs/rulesregs/sdwa/ucmr/ucmr4.com or contact Superintendent Judith Hansen at water@kingston-ny.gov. The Fifth Unregulated Contaminant Monitoring Rule (UCMR5) has not yet been finalized but sampling for the KWD is expected to begin in 2024.

WHAT DOES THIS INFORMATION MEAN?

What are trihalomethanes?

- Trihalomethanes are a group of chemicals that are formed in drinking water during disinfection when chlorine reacts with naturally occurring organic material (e.g., decomposing vegetation such as tree leaves, algae or other aquatic plants) in surface water sources such as rivers and lakes. They are disinfection byproducts and include the individual chemicals chloroform, bromoform, bromodichloromethane, and chlorodibromomethane. The amount of trihalomethanes formed in drinking water during disinfection can change from day to day, depending on the temperature, the amount of organic material in the water, the amount of chlorine added, and a variety of other factors.

- Disinfection of drinking water by chlorination is beneficial to public health. Drinking water is disinfected by public water suppliers to kill bacteria and viruses that could cause serious illnesses, and chlorine is the most commonly used disinfectant in New York State. All public water systems that use chlorine as a disinfectant contain trihalomethanes to some degree.

What are the health effects of trihalomethanes?

• Some studies suggest that people who drank water containing trihalomethanes for long periods of time (e.g., 20 to 30 years) have an increased risk of certain health effects. These include an increased risk for cancer and for low birth weights, miscarriages and birth defects. The methods used by these studies could not rule out the role of other factors that could have resulted in the observed increased risks. In addition, other similar studies do not show an increased risk for these health effects. Therefore, the evidence from these studies is not strong enough to conclude that trihalomethanes were a major factor contributing to the observed increased risks for these health effects. Studies of laboratory animals show that some trihalomethanes can cause cancer and adverse reproductive and developmental effects, but at exposures much higher than exposures that could result through normal use of the water. The United States Environmental Protection Agency reviewed the information from the human and animal studies and concluded that while there is no causal link between disinfection byproducts (including trihalomethanes) and human health effects, the balance of the information warranted stronger regulations that limit the amount of trihalomethanes in drinking water, while still allowing for adequate disinfection. The risks for adverse health effects from trihalomethanes in drinking water are small compared to the risks for illness from drinking inadequately disinfected water.

What does this mean?

• This is not an emergency. If it had been an emergency, you would have been notified within 24 hours. TTHM are four volatile organic chemicals which form when disinfectants react with natural organic matter in the water. People who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

What is being done?

The Town of Ulster Water Department will now be taking quarterly samples testing for disinfection byproducts in your district. The Water Department will also be routinely flushing fire hydrants throughout the district. The flushing should lower the THM levels in the distribution system.

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. Some information included in our table was supplied by the Kingston Water Department.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The East Kingston Water District 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

Do I Need To Take Special Precautions?

Although our drinking water met state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immune-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 infection. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

Is Our Water System Meeting Other Rules That Govern Operations?

During 2022 our system was in compliance with all applicable State drinking water operating, monitoring and reporting requirements.

Why Save Water and How Do We Avoid Wasting It?

Although our area is very fortunate to have access to a water supply which more than meets our demands, conservation efforts by both the town and the consumer are prudent in deterring increasing costs. As a consumer you can participate in this water conservation effort. The following are some ideas that can be directly applied to your individual homes: 1) Use water-saving, flow-restricting shower heads and low flow faucets (aerators): 2) Repair dripping faucets and toilets that seem to flush by themselves: 3) Replace your toilet with a low flush model or place a brick in your tank to reduce the volume used on each flush: 4) Water your garden and lawn only when necessary. Remember that a layer of mulch in the flower beds and garden is not only aesthetically pleasing but will help retain moisture: 5) Water your lawn after 6:00pm, this prevents water loss due to evaporation: 6) When washing your car don't let the hose run continuously; and 7) When brushing your teeth, or when shaving or shampooing your hair try to avoid running the water unnecessarily; and lastly try whenever possible to wash clothes and run the dishwasher only when you have a full load.

Security:

This water system has increased preventive security measures to protect the water supply from vandalism. The public can also assist us by reporting any suspicious activities around water department facilities or properties.

Closing:

Thank you for allowing us to continue to provide your family with quality water this year. We ask that all our customers help us protect our water sources, which are the heart of our community and our way of life. Please call our office if you have any questions.