

2023 Drinking Water Consumer Confidence Report (Supplemental Data)

CITY OF ROCHESTER, NEW YORK

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Introduction

The Rochester Water Bureau has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, and water system contacts.

This year, as in years past, your tap water met all USEPA and state drinking water health standards. Our system vigilantly safeguards its surface water supply, and we are able to report that the department had no violation of a contaminant level or of any other water quality standard in the previous year. This report summarizes the quality of water that we provided last year, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with this information because informed customers are our best allies.

Source Water Information.

The City of Rochester Distribution System receives its drinking water from the Hemlock and Shoremont Water Filtration Plants located in Livingston and Monroe Counties.

What are sources of contamination to drinking water?

The sources of drinking water for Rochester are Hemlock Lake, Canadice Lake and Lake Ontario. The City also maintains three storage reservoirs. 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 contaminants that may be present in source water include:

- (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations
- (B) 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.
- (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- (D) 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
- (E) 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, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The presence of some contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

About your drinking water and the data in this report.

The EPA requires regular sampling to ensure drinking water safety. The City of Rochester Water Bureau conducts sampling for bacteriological; inorganic; radiological; synthetic organic and volatile organic contaminants. Samples were collected in 2023 for over 200 different contaminants most of which were not detected in the City of Rochester water supply. The EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, is more than one year old.

2023 Lead and Copper Survey.

The lead and copper rule is one of the many federal and state regulations that exist to ensure the quality and safety of everyone's drinking water. The City of Rochester Public Water Supply is in compliance with these regulations. In 2023 samples were collected from 103 locations in the distribution system where the highest levels of these contaminants were likely to be found. The 90th percentile for lead was 11 ug/L with a range from <1 ug/L to a maximum of 52.2 ug/L. The 90th percentile for copper was 260 ug/L with a range from 20 to a maximum of 430 ug/L. Both 90th percentiles are below the 15 ug/L action level for lead and 1300 ug/L action level for copper (90th percentile: 90% of samples were at, or below, the value reported).

Unregulated Contaminant Monitoring Rule 5 (UCMR5).

The 1996 Safe Drinking Water Act (SDWA) amendments require that once every five years EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems. UCMR5 was published on December 27, 2021 and requires public water systems to participate in monitoring between 2023 and 2025. The monitoring results provided the basis for future regulatory actions to protect public health. The City of Rochester participated in UCMR5 in 2023.

Quality Assurance - Reliability and Accuracy of Reported Data

A quality assurance program is necessary for all drinking water laboratories to document analytical uncertainty and to promote confidence in analytical results. Our Quality Assurance Program consists of two parts: Quality Control and Quality Assessment. Our Quality Control program consists of laboratory practices that are undertaken to insure accuracy and reliability in analytical results. Our Quality Assessment program consists of activities to monitor and document the effectiveness of our Quality Control Program. Assessment activities include quarterly data integrity audits, annual quality system audits, participation in proficiency test programs twice per year and biannual audits conducted by a New York State DOH ELAP auditor.

The City of Rochester Water Quality Laboratory (New York State Department of Health Lab ID#10239) is approved as an Environmental Laboratory in conformance with the National Environmental Laboratory Accreditation Conference Standards (NELAC; 2003) for the Category ENVIRONMENTAL ANALYSIS POTABLE AND NON-POTABLE WATER. All tests results

generated for this report were performed in accordance with approved methods by the City of Rochester Water Quality Laboratory or by a NELAC contract laboratories certified for the analysis of potable and non-potable water. Monroe County Water Authority data is provided courtesy of the MCWA Water Quality Laboratory. Samples analyzed for this report were collected at the Entry Point (Water leaving the filtration plant), from the source (Hemlock Lake), or within the Distribution System (Network of pipes and storage facilities downstream of the filtration plant that are used to deliver potable water to the consumer).

For more information on your drinking water contact:

Hemlock Filtration Plant Water Quality Laboratory at 585-428-6680 ext 1
Laboratory Director/Water Quality Chemist at 585-428-6011
New York State Department of Health at 1-800-458-1158 (within New York State)
EPA Safe Drinking Water Hotline at 1-800-426-4791
Monroe County Water Authority at 585-442-2000

Definitions of some terms contained within this report.

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. MCLG's are not enforceable.
Maximum Contaminant level (MCL):	The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. MCLs are enforceable.
Secondary MCL:	A secondary standard is a non-enforceable guideline that may cause aesthetic effects such as changes to the taste, odor or color of drinking water.
Action Level (AL):	The concentrations of a contaminant, which, when exceeded triggers additional treatment, or other requirements, that a water system must follow.
LRAA:	Locational Running Annual Average; The annual average contaminant concentration at a monitoring site.
Maximum Residual Disinfectant Level (MRDL):	The highest level of disinfectant that is allowed in drinking water.
MFL:	Millions of fibers per liter. A units of measure for absestos fibers longer than 10 micrometers.
Milligrams per Liter (mg/L):	A unit of measure for concentration of a contaminant that is also refered to as parts per million.. Anology: A part per million corresponds to one second in a little over 11.5 days.
Micrograms per Liter (µg/L):	A unit of measure for concentration of a contaminant that is also refered to as parts per billion. Anology: A part per billion corresponds to one second in 31.7 years.
Nanograms per Liter (ng/L):	A unit of measure for concentration of a contaminant that is also refered to as parts per trillion. Anology: A part per trillion corresponds to one second in 32,000 years.
NTU:	Nephelometric turbidity units. A measure of water clarity. Turbidity in excess of 5 NTU is just noticeable to the average person.
Treatment Technique (TT):	A required process intended to reduce the level of a contaminant in drinking water.
The "<"symbol:	A symbol which means less than. A result of < 5, for example, means that the result is below the lowest concentration that can be detected by the analytical method for a given contaminant. Essentially means the same thing as not detected "ND".
NA or N/A	not applicable
ND	not detected.

Monitoring Results

The City of Rochester had no reporting violations in 2023

This summary contains results for both detected and non-detected contaminants. Information on health effects is provided for detected contaminants only.

Radiological Contaminants (Entry Point)												
Contaminant (units)	Sample Year	Hemlock Water Filtration Plant						Monroe County Water Authority				
		No. Tests	Minimum	Avg	Maximum	MCLG	MCL	Violation	No. Tests	Minimum	Avg	Maximum
Alpha emitters (pCi/L)	2018	0		ND		0	15		1 (2021)		ND	
Uranium, Total (pCi/L)	2018	0		ND		0	30		1 (2021)		ND	
Combined Radium 226+228 (pCi/L)	2019	0		1.11±0.54		0	5		1 (2021)		ND	
Health Effect:	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.											

Microbiological Contaminants (Entry Point)												
Contaminant (units)	Sample Year	Hemlock Water Filtration Plant				Monroe County Water Authority						
		No. Tests		Total No. Positive	% Positive	MCLG	MCL	Violation	No. Tests		Total No. Positive	% Positive
Finished Water Coliform, Total (P/A)	2023	363		0	0.0	N/A	TT	N	http://www.mcwa.com/			
E.Coli (P/A)	2023	363		0	0.0		0	N	http://www.mcwa.com/			

Contaminant (units)	Sample Year	No. Tests	Minimum	Avg	Maximum	MCLG	MCL	Violation	No. Tests	Minimum	Avg	Maximum
Raw Water Giardia (Oocysts/L)	2023	1	0.00	0.00	0.00	0	TT	N	4		ND	
Finished Water Turbidity (NTU)	2023	2,179	0.03	0.05	0.14		TT (mo. avg <0.3NTU for 95% of samples)	N (100%)	2,188	0.02	0.04	0.09
Health Effect:	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.											

Microbiological Contaminants (Distribution System)									
Contaminant (units)	Sample Year	No. Tests	Total No. Positive	Highest Month % Positive	% Positive Annual Avg	MCLG	MCL	Violation	
									Coliform, Total (P/A)
Health Effect:	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were NOT found in more samples than allowed.								
E. Coli (P/A)	2023	1,845	0	NA	0.0			N	

Cyptosporidium and Giardia samples collected from reservoir effluent PRIOR to chlorination

Contaminant (units)	Sample Year	No. Tests	Minimum	Avg	Maximum	MCLG	MCL	Violation
Highland Reservoir Giardia (Oocysts/L)	2023	23	0.00	0.00	0.00	0	TT	N
Cobbs Hill Reservoir Cryptosporidium (Oocysts/L)	2023	18	0.00	0.00	0.00	0	TT	N
Cobbs Hill Reservoir Giardia (Oocysts/L)	2023	18	0.00	0.00	0.00	0	TT	N
Turbidity (NTU)	2023	1,783	0.03	0.11	7.00		TT (mo. avg <5NTU)	N

Inorganic Contaminants (Entry Point)												
Contaminant (units)	Sample Year	Hemlock Water Filtration Plant						Monroe County Water Authority				
		No. Tests	Minimum	Avg	Maximum	MCLG	MCL	Violation	No. Tests	Minimum	Avg	Maximum
Alkalinity (mg/L)	2023	1	72	72	72		15	N	4	89	91	92
Health Effect:	Alkalinity has no health effect. It is a measure of a waters ability to neutralize acid.											
Calcium (mg/L)	2023	1	26.0	26.0	26.0		15	N	4	32	34	35
Health Effect:	Calcium is a beneficial nutrient found in potable water. Multiplying the calcium concentration by 2.5 converts the result to a value expressed as mg/L of calcium hardness (as CaCO3). Calcium hardness can contribute to scale formation on plumbing fixtures.											
Chloride (mg/L)	2023	1	37	37	37		15	N	4	23	25	26
Health Effect:	Low to moderate concentrations of chloride add palatability to water. The EPA Secondary Drinking Water Regulations recommend a maximum concentration of 250 mg/L for chloride. At this concentration water may taste salty.											
Sulfate (mg/L)	2023	1	22	22	22		15	N	4	24	26	27
Health Effect:	Low to moderate concentrations of sulfate add palatability to water. The EPA Secondary Drinking Water Regulations recommend a maximum concentration of 250 mg/L for sulfate. At this concentration water may taste salty.											
Color (True) (Color Unit)	2023	1	<3	<3	<3		15	N	0		NA	
Color (Apparent) (Color Unit)	2023	1	<3	<3	<3		15	N	4		ND	
Fluoride (mg/L)	2023	1,081	0.08	0.68	0.77	2.2	2.2	N	2,084	0.20	0.72	0.98
Health Effect:	Fluoride has been shown to prevent tooth decay at the levels that exist within our distribution system. Fluoride occurs naturally (0.10 mg/L in Hemlock Lake) and is added as a treatment chemical. The average fluoride concentration within our water supply is 3 times lower than the NYS MCL. Some people who drink water containing fluoride in excess of 4 mg/L over many years could get bone disease, including pain and tenderness of the bones.											
ortho-Phosphate (mg/L)	2023	1		<0.03							NA	
Nitrate (mg/L)	2023	12	0.01	0.08	0.14	10	10	N	4	ND	0.26	0.5
Health Effect:	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.											
Nitrite (mg/L)	2023	3	<0.01	<0.01	<0.01			N	4		ND	
pH (SU)	2023	364	7.30	7.80	8.16		6.5-8.5 SU	N	365	7.2	7.5	8.2
Health Effect:	There is no health effect for pH. The EPA Secondary Drinking Water Regulations recommend a range of 6.5-8.5 SU for pH. Low pH can results in a bitter metallic taste and increased corrosivity; High pH can results in a soda taste and contribute to scale formation.											
Total Hardness (mg/L)	2023	1		92			NA	N	4	120	123	130
Health Effect:	No health effect is associated with total hardness. Total hardness is the sum of both calcium and magnesium hardness and is expressed in mg/L. Total hardness is sometimes expressed in grains per gallon (gpg). The grains of hardness in City water is 5 gpg.											
Finished Water Specific Conductivity (umhos/cm)	2023	362	267	297	346		NA	N	48	290	303	320
Health Effect:	Conductivity is a measure of the waters ability to carry and electrical current and is correlated with the amount of total dissolved solids in the water. Conductivity is dependent on source water quality and is used by the water quality laboratory to differentiate between drinking water sourced from Hemlock Lake and Lake Ontario within the distribution system.. The conductivity of potable water sourced from Lake Ontario is approximatley 20 umhos/cm higher than potable water from sourced from He											
Total Dissolved solids (mg/L)	2023	1		160			500	N	4	160	173	180
Health Effect:	Contributes to the hardness, color and taste of the water. The EPA has established a secondary maximum contaminant level concentration of 500 mg/L for TDS.											
Iron (mg/L)	2023	1		<0.100				N	4		ND	
Magnesium (mg/L)	2023	1		6.6			NA	N	1		8.6	
Health Effect:	Magnesium is a beneficial nutrient found in potable water. Multiplying the magnesium concentration by 2.5 converts the result to a value expressed as mg/L of magnesium hardness (as MgCO3). Magnesium hardness can contribute to scale formation on plumbing fixtures.											
Potassium (mg/L)	2023	1		1.6				N	1		1.7	
Health Effect:	Potassium is an essential nutrient and is present in very low levels in drinking water.											
Sodium (mg/L)	2023	1		20			50	N	4	14	15	16
Health Effect:	Sodium is an essential nutrient in small levels. People on severely restricted sodium diets should avoid drinking water containing more than 20 mg/L sodium. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.											
Aluminum (ug/L)	2023	1		7.6			200	N	4	24	47	67
Health Effect:	High levels of aluminum can lead to colored water. The EPA Secondary Drinking Water Regulations recommend a maximum concentration of 0.2 mg/L (=200 ug/L) for aluminum.											
Antimony (ug/L)	2023	1		<1.0		6	6	N	4		ND	

Inorganic Contaminants (Entry Point)												
Contaminant (units)	Sample Year	Hemlock Water Filtration Plant							Monroe County Water Authority			
		No. Tests	Minimum	Avg	Maximum	MCLG	MCL	Violation	No. Tests	Minimum	Avg	Maximum
Arsenic (ug/L)	2023	1		<1.0		0	10	N	4		ND	
Barium (mg/L)	2023	1		0.017		2	2	N	4	0.018	0.020	0.021
Health Effect:		Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.										
Beryllium (ug/L)	2023	1		<0.3		4	4	N	4		ND	
Cadmium (ug/L)	2023	1		<0.5		5	5	N	4		ND	
Chromium, Total (ug/L)	2023	1		<0.9		100	100	N	4		ND	
Copper (ug/L)	2023	1		15		1300	1300	N	4		ND	
Health Effect:		Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.										
Cyanide (mg/L)	2023	1		<0.005		0.2	0.2	N	4		ND	
Lead (ug/L)	2023	1		<1		0	15	N	4		ND	
Manganese (ug/L)	2023	1		<2.0			50	N	4		ND	
Nickel (ug/L)	2023	1		<1.0			100	N	4		ND	
Selenium (ug/L)	2023	1		<2.0		50	50	N	4		nd	
Silver (ug/L)	2023	1		<0.5			100	N	4		ND	
Thallium (ug/L)	2023	2	<0.30	<0.30	0.30	0.5	2	N	4		ND	
Health Effect:		Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.										
Zinc (ug/L)	2023	1		<5.0			5000	N	4		ND	
Mercury (ug/L)	2023	1		<0.1		2	2	N	4		ND	

Inorganic Contaminants and/or Analytes (Distribution System)								
Contaminant (units)	Sample Year	No. Tests	Minimum	Avg	Maximum	MCLG	MCL	Violation
Distribution System Fluoride (mg/L)	2023	305	0.50	0.68	0.76			N
1776 Dewey Ave Asbestos (MFL)	2023	1		ND		7	7	N

Lead and Copper Survey (Distribution System)								
Contaminant (units)	Sample Year	No. Samples	Minimum	90th %	Maximum	MCLG	AL	Violation
Copper (ug/L)	2023	103	20	260	430	1300	1300 (0 locations >AL)	N
Health Effect:		Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.						
Lead (ug/L)	2023	103	<1	10	52.2	0	15 (5 locations >AL)	N
Health Effect:		Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.						

Disinfectants and Disinfection By-Products (Entry Point)								
Contaminant (units)	Sample Year	No. Tests	Minimum	Avg	Maximum	MCLG	MCL (MRDL for Chlorine)	Violation
Total Organic Carbon (TOC) (mg/L)	2023	1		2.47		N/A	TT	N
Health Effect:		Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.						
UV254 (abs/cm)	2023	1		0.033			NA	N
Health Effect:		There is no health hazard associated with UV-254. There is a relationship UV-254 absorbance and total organic carbon concentrations and UV-254 can be used as a surrogate for TOC measurement.						
Free Chlorine Residual (mg/L)	2023	2,168	0.71	0.90	1.37	4	4	N
Health Effect:		Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.						

Disinfectants and Disinfection By-Products (Entry Point)								
Contaminant (units)	Sample Year	No. Tests	Minimum	Avg	Maximum	MCLG	MCL (MRDL for Chlorine)	Violation
Bromodichloromethane (ug/L)	2023	1		4.7			NA	N
Bromoform (ug/L)	2023	1		<0.5			NA	N
Chloroform (ug/L)	2023	1		13.0			NA	N
Dibromochloromethane (ug/L)	2023	1		1.0			NA	N
Total Trihalomethanes (ug/L)	2023	1		19			80	N
Health Effect:	Increased risk of cancer associated with long-term exposure above the MCL.							
Dibromoacetic Acid (ug/L)	2023	1		<1.0			NA	N
Dichloroacetic Acid (ug/L)	2023	1		6.3			NA	N
Monobromoacetic Acid (ug/L)	2023	1		<1.0			NA	N
Monochloroacetic Acid (ug/L)	2023	1		<2.0			NA	N
Trichloroacetic Acid (ug/L)	2023	1		4.7			NA	N
Haloacetic Acids (5) (ug/L)	2023	1		11			60	N
Health Effect:	Increased risk of cancer associated with long-term exposure above the MCL.							

Disinfectants and Disinfection By-Products (Distribution System)									
Contaminant (units)	Sample Year	No. Tests	Minimum	Avg	Maximum	MCLG	MCL (MRDL for Chlorine)	Violation	Maximum LRAA
Free Chlorine Residual (mg/L)	2023	2,806	0.25	0.91	1.94	4	4	N	
Health Effect:	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.								
Bromodichloromethane (ug/L)	2023	32	6	10	13		NA	N	
Bromoform (ug/L)	2023	32	0	0	0		NA	N	
Chloroform (ug/L)	2023	32	7	35	60		NA	N	
Dibromochloromethane (ug/L)	2023	32	2	2	4		NA	N	
Total Trihalomethanes (ug/L)	2023	32	15	47	76		80	N	50
Health Effect:	Increased risk of cancer associated with long-term exposure above the MCL.								
Dibromoacetic Acid (ug/L)	2023	32	0	0	0		NA	N	
Dichloroacetic Acid (ug/L)	2023	32	4	14	34		NA	N	
Monobromoacetic Acid (ug/L)	2023	32	0	0	0		NA	N	
Monochloroacetic Acid (ug/L)	2023	32	0	1	4		NA	N	
Trichloroacetic Acid (ug/L)	2023	32	4	14	26		NA	N	
Haloacetic Acids (5) (ug/L)	2023	32	7	29	64		60	N	34
Health Effect:	Increased risk of cancer associated with long-term exposure above the MCL.								

Semi-Volatile Organic Contaminants (Entry Point)												
Contaminant (units)	Sample Year	Hemlock Water Filtration Plant							Monroe County Water Authority			
		No. Tests	Minimum	Avg	Maximum	MCLG	MCL***	Violation	No. Tests	Minimum	Avg	Maximum
1,2-Dibromo-3-Chloropropane (DBCP) (ug/L)	2023	1		<0.01		0	0.2	N	1		ND	
1,2-Dibromoethane (EDB) (ug/L)	2023	1		<0.01		0	0.05	N	1		ND	
1,4-Dioxane (ug/L)	2023	4	<0.07	<0.07	<0.07		1	N	4		ND	
Perfluorooctane sulfonate (PFOS) (ng/L)	2023	1		<1.90			10	N	4	ND	0.6	2.4
Health Effect:	Human studies have found associations between long-term PFOS exposure and several types of health effects including the liver, the immune system, the cardiovascular system, human development (e.g., decreased birth weight), and cancer. The most sensitive non-cancer effect from the best available science that is the basis for the interim updated health advisories for PFOA and PFOS is suppression of vaccine response (decreased serum antibody concentrations) in children.											
Perfluorooctanoic acid (PFOA) (ng/L)	2023	1		<1.90			10	N	1		ND	
Perfluorobutanoic acid (PFBA) (ng/L)	2023	4		<0.005			NA	N	4	ND	1.7	2.5
Health Effect:	Perfluorobutanoic acid (PFBA) is a unregulated member of a group of perfluorinated chemicals and can cause health effects similar to PFOS.											
Aroclor 1016 (PCB's) (ug/L)	2023	1		<0.08			NA	N	0		ND	
Aroclor 1221 (PCB's) (ug/L)	2023	1		<0.10			NA	N	0		ND	
Aroclor 1232 (PCB's) (ug/L)	2023	1		<0.10			NA	N	0		ND	
Aroclor 1242 (PCB's) (ug/L)	2023	1		<0.10			NA	N	0		ND	
Aroclor 1248 (PCB's) (ug/L)	2023	1		<0.1			NA	N	0		ND	
Aroclor 1254 (PCB's) (ug/L)	2023	1		<0.1			NA	N	0		ND	
Aroclor 1260 (PCB's) (ug/L)	2023	1		<0.1			NA	N	0		ND	

Semi-Volatile Organic Contaminants (Entry Point)												
Contaminant (units)	Sample Year	Hemlock Water Filtration Plant							Monroe County Water Authority			
		No. Tests	Minimum	Avg	Maximum	MCLG	MCL***	Violation	No. Tests	Minimum	Avg	Maximum
Total PCB's (ug/L)	2023	1		ND		0	0.5	N	4		ND	
Chlordane (ug/L)	2023	1		<0.1		0	2	N	4		ND	
Toxaphene (ug/L)	2023	1		<0.5		0	3	N	4		ND	
2,4-D (ug/L)	2023	1		<0.1			50	N	1		ND	
Dalapon (ug/L)	2023	1		<1.0		200	200	N	4		ND	
Dacthal, mono & di acid, DCPA (ug/L)	2023	1		<0.5			50	N	4		ND	
Dicamba (ug/L)	2023	1		<0.1			50	N	1		ND	
Dinoseb (ug/L)	2023	1		<0.1		7	7	N	1		ND	
Pentachlorophenol (ug/L)	2023	1		<0.04		0	1	N	4		ND	
Picloram (ug/L)	2023	1		<0.1		500	500	N	1		ND	
2,4,5-TP (Silvex) (ug/L)	2023	1		<0.1		50	50	N	1		ND	
Alachlor (ug/L)	2023	1		<0.1		0	2	N	4		ND	
Aldrin (ug/L)	2023	1		<0.1			50	N	4		ND	
Atrazine (ug/L)	2023	1		<0.1		3	3	N	4		ND	
Benzo(a)pyrene (ug/L)	2023	1		<0.02		0	0.2	N	4		ND	
gama-BHC (Lindane) (ug/L)	2023	1		<0.02		0.2	0.2	N	4		ND	
Butachlor (ug/L)	2023	1		<0.1			50	N	4		ND	
Dieldrin (ug/L)	2023	1		<0.1			50	N	4		ND	
Di(2-ethylhexyl) adipate (ug/L)	2023	1		<0.6		400	400	N	4		ND	
Di(2-ethylhexyl) phthalate (ug/L)	2023	1		<0.6		0	6	N	4		ND	
Endrin (ug/L)	2023	1		<0.01		2	2	N	4		ND	
Heptachlor (ug/L)	2023	1		<0.01		0	0.4	N	4		ND	
Heptachlor epoxide (ug/L)	2023	1		<0.01		0	0.2	N	4		ND	
Hexachlorobenzene (ug/L)	2023	1		<0.1		0	1	N	4		ND	
Hexachlorocyclopentadiene (ug/L)	2023	1		<0.1		50	50	N	4		ND	
Methoxychlor (ug/L)	2023	1		<0.1		40	40	N	4		ND	
Metolachlor (ug/L)	2023	1		<0.1			50	N	4		ND	
Metribuzin (ug/L)	2023	1		<0.1			50	N	4		ND	
Propachlor (ug/L)	2023	1		<0.1			50	N	4		ND	
Simazine (ug/L)	2023	1		<0.07		4	4	N	4		ND	
Aldicarb (ug/L)	2023	1		<0.5			50	N	1		ND	
Aldicarb sulfone (ug/L)	2023	1		<0.7			50	N	1		ND	
Aldicarb sulfoxide (ug/L)	2023	1		<0.5			50	N	1		ND	
Carbaryl (ug/L)	2023	1		<0.5			50	N	4		ND	
Carbofuran (ug/L)	2023	1		<0.9		40	40	N	4		ND	
3-Hydroxycarbofuran (ug/L)	2023	1		<0.5			50	N	1		ND	
Methomyl (ug/L)	2023	1		<0.5			50	N	1		ND	
1-Naphthol (ug/L)	2023	1		<1.0			50	N	4		ND	
Oxamyl (ug/L)	2023	1		<1.0		200	200	N	1		ND	
Glyphosate (ug/L)	2023	1		<6.0		700	700	N	1		ND	
Endothall (ug/L)	2023	1		<5.0		100	100	N	1		ND	
Diquat (ug/L)	2023	1		<0.4		20	20	N	1		ND	
2,3,7,8-TCDD (Dioxin) (pg/L)	2023	1		<4.80		0	30	N	1		ND	

Volatile Organic Contaminants (Entry Point)												
Contaminant (units)	Sample Year	Hemlock Water Filtration Plant							Monroe County Water Authority			
		No. Tests	Minimum	Avg	Maximum	MCLG	MCL***	Violation	No. Tests	Minimum	Avg	Maximum
Benzene (ug/L)	2023	1		<0.5		0	5	N	4		ND	
Bromobenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
Bromochloromethane (ug/L)	2023	1		<0.5			5	N	4		ND	
Bromomethane (ug/L)	2023	1		<0.5			5	N	4		ND	
n-Butylbenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
sec-Butylbenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
tert-Butylbenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
Carbon tetrachloride (ug/L)	2023	1		<0.5		0	5	N	4		ND	
Chlorobenzene (ug/L)	2023	1		<0.5			5	N	4		ND	

Volatile Organic Contaminants (Entry Point)												
		Hemlock Water Filtration Plant							Monroe County Water Authority			
		No. Tests	Minimum	Avg	Maximum	MCLG	MCL***	Violation	No. Tests	Minimum	Avg	Maximum
Chloroethane (ug/L)	2023	1		<0.5			5	N	4		ND	
Chloromethane (ug/L)	2023	1		<0.5			5	N	4		ND	
2-Chlorotoluene (ug/L)	2023	1		<0.5			5	N	4		ND	
4-Chlorotoluene (ug/L)	2023	1		<0.5			5	N	4		ND	
Dibromomethane (ug/L)	2023	1		<0.5			5	N	4		ND	
1,2-Dichlorobenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
1,3-Dichlorobenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
1,4-Dichlorobenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
Dichlorodifluoromethane (ug/L)	2023	1		<0.5			5	N	4		ND	
1,1-Dichloroethane (ug/L)	2023	1		<0.5		0	5	N	4		ND	
1,2-Dichloroethane (ug/L)	2023	1		<0.5		0	5	N	4		ND	
1,1-Dichloroethylene (ug/L)	2023	1		<0.5		5	5	N	4		ND	
cis-1,2-Dichloroethylene (ug/L)	2023	1		<0.5		5	5	N	4		ND	
trans-1,2-Dichloroethylene (ug/L)	2023	1		<0.5		5	5	N	4		ND	
Dichloromethane (ug/L)	2023	1		<0.5		0	5	N	4		ND	
1,2-Dichloropropane (ug/L)	2023	1		<0.5		0	5	N	4		ND	
1,3-Dichloropropane (ug/L)	2023	1		<0.5			5	N	4		ND	
2,2-Dichloropropane (ug/L)	2023	1		<0.5			5	N	4		ND	
1,1-Dichloropropylene (ug/L)	2023	1		<0.5			5	N	4		ND	
cis-1,3-Dichloropropylene (ug/L)	2023	1		<0.5			5	N	4		ND	
trans-1,3-Dichloropropylene (ug/L)	2023	1		<0.5			5	N	4		ND	
1,3-Dichloropropylene, cis & trans (ug/L)	2023	1		<0.5			5	N	4		ND	
Ethyl benzene (ug/L)	2023	1		<0.5		5	5	N	4		ND	
Hexachlorobutadiene (ug/L)	2023	1		<0.3			5	N	4		ND	
Isopropylbenzene (ug/L)	2023	1		<0.3			5	N	4		ND	
4-Isopropyltoluene (ug/L)	2023	1		<0.5			5	N	4		ND	
Methyl-t-butyl ether (MTBE) (ug/L)	2023	1		<0.5			10	N	4		ND	
Naphthalene (ug/L)	2023	1		<0.5			5	N	4		ND	
n-Propylbenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
Styrene (ug/L)	2023	1		<0.5			5	N	4		ND	
1,1,1,2-Tetrachloroethane (ug/L)	2023	1		<0.5			5	N	4		ND	
1,1,2,2-Tetrachloroethane (ug/L)	2023	1		<0.5			5	N	4		ND	
Tetrachloroethylene (ug/L)	2023	1		<0.5		0	5	N	4		ND	
Toluene (ug/L)	2023	1		<0.5			5	N	4		ND	
1,2,3-Trichlorobenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
1,2,4-Trichlorobenzene (ug/L)	2023	1		<0.5		5	5	N	4		ND	
1,1,1-Trichloroethane (ug/L)	2023	1		<0.5		5	5	N	4		ND	
1,1,2-Trichloroethane (ug/L)	2023	1		<0.5		3	3	N	4		ND	
Trichloroethylene (ug/L)	2023	1		<0.5		0	5	N	4		ND	
Trichlorofluoromethane (ug/L)	2023	1		<0.5			5	N	4		ND	
1,2,3-Trichloropropane (ug/L)	2023	1		<0.5			5	N	4		ND	
1,2,4-Trimethylbenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
1,3,5-Trimethylbenzene (ug/L)	2023	1		<0.5			5	N	4		ND	
Vinyl chloride (ug/L)	2023	1		<0.2		0	2	N	4		ND	
1,2-Xylene (ug/L)	2023	1		<0.5			5	N	0		ND	
1,3 + 1,4-Xylene (ug/L)	2023	1		<0.5			5	N	0		ND	
Xylenes, Total (ug/L)	2023	1		<0.5			15	N	4		ND	

EPA's Fifth Unregulated Contaminant Monitoring Rule (UMCR5)									
No Per/Polyfluorinated Alkyl Substances Were Detected in Any Sample Event		2023 Sample Events - Unit - ug/L (parts per billion)							
Contaminant	Acronym	SE1 (2/23)		SE2 (5/23)		SE3 (8/23)		SE4 (11/23)	
		RWW	MCWA	RWW	MCWA	RWW	MCWA	RWW	MCWA
1H,1H,2H,2H-Perfluorodecane sulfonic acid	8:2 FTS	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Nonafluoro-3,6-dioxaheptanoic acid	NFDHA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoro-3-methoxypropanoic acid	PFMPA	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Perfluoro-4-methoxybutanoic acid	PFMBA	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Perfluoro (2-ethoxyethane) sulfonic acid acid	PFEESA	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
N-ethylperfluorooctanesulfonamidoacetic acid	NEtFOSAA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
N-methylperfluorooctanesulfonamidacetic acid	NMeFOSAA	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Perfluorotetradecanoic acid	PFTA	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Perfluorotridecanoic acid	PFTrDA	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Lithium	Li	<9.00	<9.00	<9.00	<9.00	<9.00	<9.00	<9.00	<9.00

Entry Point Water Quality Parameter (WQP) samples collected in 2023 to comply with the lead and copper rule.					
Substance	units	MCLG	MCL	Average (Annual Range)	Meets EPA Standards
pH	SU	NA	NA	7.82 (7.73-8.03)	Yes
Free Chlorine	mg/L	4	4	0.98 (0.91-1.30)	Yes
Turbidity –Entry Point	NTU	NA	0.3 NTU	0.05 (0.04-0.07)	Yes
Alkalinity	mg/L	NA	NA	72 (59-76)	NA
Specific Conductivity	Umhos/cm	NA	NA	298 (286-308)	Yes
Temperature	Deg C	NA	NA	18 (7-25)	NA

Distribution System Water Quality Parameters: Water Quality Parameter (WQP) samples collected quarterly from 21 representative locations to comply with the lead and copper rule in 2023.					
Substance	units	MCLG	MCL	Average (Annual Range)	Meets EPA Standards
pH	SU	NA	NA	7.87 (7.55-8.24)	Yes
Free Chlorine	mg/L	4	4	0.93 (0.10-1.59)	Yes
Turbidity -Distribution	NTU	NA	5 NTU	0.08 (0.05-0.34)	Yes
Alkalinity	mg/L	NA	NA	72 (47-92)	NA
Specific Conductivity	Umhos/cm	NA	NA	302 (293-319)	Yes
Temperature	Deg C	NA	NA	18 (10-24)	NA