



2023 Annual
Water Quality Report

MCWA PWS ID# NY2701047
MCWA GENESEE PWS ID# NY1800547
MCWA RICHMOND PWS ID# NY3401158



2023 Annual
Water Quality Report

SCAN CODE FOR AWQR REPORT:



The Monroe County Water Authority is pleased to provide you this report on the quality of your drinking water which describes its sources, treatment and test results.

MCWA | Established 1950

MCWA Water Quality Summary Table									
2023 Calendar Year Results -									
Detected Substances:	Supply Source -			MCWA Production Water:		MCWA Purchased Water:		Likely Sources in Drinking Water:	Water Quality Violation:
	Source - (Source Type)			Lake Ontario (Surface Water)	Well Field (Groundwater)	Hemlock Lake (Surface Water)	Lake Erie (Surface Water)		
	Units	MCLG	Regulatory Limit	Range of detected values:					
Barium	mg/L	2	2	0.018 - 0.021	0.09 - 0.1	0.014	0.02	Erosion of natural deposits	No
Chloride	mg/L	NA	250	23 - 29	49 - 84	35 - 39	20 - 22	Naturally occurring	No
Chromium	µg/L	100	100	ND	ND - 2.6	ND	ND	Erosion of natural deposits	No
Fluoride	mg/L	NA	2.2	0.2 - 0.98	0.13 - 0.15	0.08 - 0.77	0.2 - 0.73	Naturally occurring & additive for dental health	No
Manganese	µg/L	NA	300	ND	6.1 - 21	ND	ND	Naturally occurring	No
Nitrate	mg/L	10	10	ND - 0.5	ND	ND	0.28	Erosion of natural deposits	No
Perfluorooctanesulfonic acid (PFOS)	ng/L	NS	10	ND - 2.5	ND	ND	ND	Environmental releases from textile sources	No
Perfluorobutanoic acid (PFBA)	ng/L	NS	10	ND - 3.1	ND - 2.7	ND - 3.2	ND - 5.2	Environmental releases from textile sources	No
Selenium	µg/L	50	50	ND - 3.6	ND - 7.1	ND	ND	Erosion of natural deposits	No
Sodium	mg/L	NA	NS	14 - 17	81 - 94 *	19 - 21 *	12 - 14	Naturally occurring	No
Sulfate	mg/L	NA	250	24 - 27	46 - 59	11 - 12	19 - 20	Naturally occurring	No
Turbidity - Turbidity is a measure of cloudiness or clarity of the water. Turbidity has no health effects. MCWA monitors turbidity because it is a good indicator of the effectiveness of our filtration systems and water quality. State regulations require that turbidity must always be below 1 NTU in the combined filter effluent. The regulations also require that 95% of samples collected from the entry point have measurements below 0.3 NTU and the highest monthly average for distribution system samples be below 5 NTU. Averages, annual ranges and lowest monthly percentages are listed.									
Turbidity - Entry Point	NTU	NA	TT	0.04 (0.01 - 0.09) 100% < 0.3 NTU	NR	0.05 (0.03 - 0.14) 100% < 0.3 NTU	0.08 (0.03 - 0.19) 100% < 0.3 NTU	Soil Runoff	No
Turbidity - Distribution	NTU	NA	5	2.44 - 10/06/2023	2.36 - 10/24/2023	2.44 - 10/06/2023	2.36 - 10/24/2023	Soil Runoff	No
Microbial Parameters - For total coliform bacteria, a Treatment Technique violation occurs when more than 5% of monthly samples are positive. The highest monthly % positive and number of positive samples is listed. For E. coli bacteria, a MCL violation occurs when a total coliform positive sample is positive for E. coli and a repeat total coliform sample is positive or when a total coliform positive sample is negative for E. coli but a repeat total coliform sample is positive and the sample is also positive for E. coli. The number of positive E. coli samples is listed.									
Total Coliform Bacteria	NA	0	TT	0.3% - September 1 sample	0%	0.3% - September 1 sample	0%	Naturally present in the environment	No
Escherichia coli (E. coli) Bacteria	NA	0	1	1 sample - 10/31/23	ND	1 sample - 10/31/23	ND	Human and animal fecal waste	No
Disinfectant and Disinfectant By-products (DBPs) - Chlorine has a MRDL (Maximum Residual Disinfectant Level) and MRDLG (MRDL Goal) rather than an MCL and MCLG (Averages and ranges are listed). For the DBPs (Total Trihalomethanes and Haloacetic Acids) the annual system averages, ranges for all locations, and highest locational running annual averages for all locations are listed.									
Chlorine Residual - Entry Point	mg/L	NA	MRDL = 4	1.16 (0.83 - 1.33) 0.82 (0.54 - 1.05)	1.14 (0.62 - 1.65)	0.9 (0.71 - 1.37)	1.41 (0.62 - 1.86)	Additive for control of microbes	No
Chlorine Residual - Distribution	mg/L	NA	MRDL = 4	0.6 (ND - 2.03)	0.7 (ND - 1.7)	0.6 (ND - 2.03)	0.7 (ND - 1.7)	Additive for control of microbes	No
Total Trihalomethanes (TTHMs)	µg/L	NA	80	39 (2 - 79) Max. LRAA = 57	50 (24 - 92) Max. LRAA = 57	39 (2 - 79) Max. LRAA = 57	50 (24 - 92) Max. LRAA = 57	Byproduct of water chlorination	No
Haloacetic Acids (HAAs)	µg/L	NA	60	11.5 (ND - 35) Max. LRAA = 19.3	9.6 (ND - 24) Max. LRAA = 16.9	11.5 (ND - 35) Max. LRAA = 19.3	9.6 (ND - 24) Max. LRAA = 16.9	Byproduct of water chlorination	No
Lead and Copper - 90% of samples must be less than the Action Level (AL). The 90th Percentile, the number of samples exceeding the AL, and the range of results are listed. (2023 monitoring period)									
Copper - Customer Tap Samples	mg/L	1.3	AL = 1.3	0.259 (None) 0.0023 - 0.68	0.142 (None) 0.004 - 0.29	0.259 (None) 0.0023 - 0.68	0.142 (None) 0.004 - 0.29	Corrosion of household plumbing	No
Lead - Customer Tap Samples	µg/L	0	AL = 15	7.2 (Five) ND - 53	0.63 (None) ND - 2.8	7.2 (Five) ND - 53	0.63 (None) ND - 2.8	Corrosion of household plumbing	No
* There is no MCL set for sodium in water. However, EPA recommends that water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.									
Unregulated Contaminant Monitoring (UCMR5) - The EPA issues lists of 30 unregulated contaminants or less to be monitored by public water systems. This provides baseline occurrence data that the EPA combines with toxicological research to make decisions about future drinking water regulations. UCMR5 was published in 2021 and requires public water systems to participate in monitoring between 2023 - 2025 using analytical methods developed by the EPA and consensus organizations. MCWA began UCMR5 monitoring in 2023. UCMR5 detected substances are listed. The complete list of UCMR5 substances may be found in the AWQR summary report.									
Metals:	Entry Points:		Lake Ontario Supplies -		Purchased Water Supplies -		Groundwater Supply -		Water Quality Violation:
	Units	Regulatory Limit	SWTP	WWTP	Rochester	ECWA	CWTP	Yes or No	
Lithium	µg/L	NA	ND	ND	ND	NR	12.1	NA	
Per & Polyfluorinated Alkyl Acids (PFAS):									
[29 PFAS Substances]	ng/L	NA	ND	ND	ND	NR	ND	NA	

For more information on the MCWA's water quality monitoring program call Customer Service at 585-442-7200 or visit our website at: www.mcwa.com.

Key Terms Used In Water Quality Table

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 possible.

MCLG = Maximum Contaminant Level Goal - The level of a contaminant below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL = Maximum Residual Disinfectant Level - The highest level of a disinfectant below which there is no known or expected risk to health. There is convincing evidence that addition of a disinfectant is necessary to microbial contaminant.

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 contamination.

LRAA = Locational Running Annual Average - The annual average contaminant concentration at a monitoring site.

pCi/L = PicoCuries per liter - A measure of the radioactivity in water.

TT = Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

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

ND = Not Detected - Absent or present at less than testing method detection level. All testing methods are EPA approved with detection limits much less than the MCL.

NA = Not applicable.

NR = Not Required.

NS = No standard.

mg/L = Milligram (1/1,000,000 of a gram) per liter = ppm = parts per million

ug/L = Microgram (1/1,000,000,000 of a gram) per liter = ppb = parts per billion

ng/L = Nanogram (1/1,000,000,000,000 of a gram) per liter = ppt = parts per trillion

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

CWTP = Corfu Water Treatment Plant

SWTP = Shoremont Water Treatment Plant

WWTP = Webster Water Treatment Plant

MCWA = Monroe County Water Authority

Rochester = City of Rochester

ECWA = Erie County Water Authority

Compounds Tested For But Not Detected

Benzene	Trichlorofluoromethane	Endothal	Nonfluoro-3,6-dioxahexanoic acid (NFDA)
Bromobenzene	1,2,3-Trichloropropane	Glyphosate	Perfluoro [2-ethoxyethane] sulfonic acid (PFESA)
Bromochloromethane	1,2,4-Trimethylbenzene	Hexachlorobenzene	Perfluoro-3-methoxypropionic acid (PFMPA)
Bromomethane	1,3,5-Trimethylbenzene	Hexachlorocyclopentadiene	Perfluoro-4-methoxybutanoic acid (PFMBA)
n-Butylbenzene	Vinyl Chloride	3-Hydroxycarbofuran	Perfluoro-4-methoxybutanoic acid (PFMB)
sec-Butylbenzene	o-Xylene	3,5-Dichlorobenzoic Acid	Perfluorooctanoic acid (PFDA)
tert-Butylbenzene	m, p-Xylene	Methoxy	Perfluorododecanoic acid (PFDDA)
Carbon Tetrachloride	Total Xylene	Metolachlor	Perfluorododecanoic acid (PFDDA)
Chlorobenzene	Acfluorfen	Metribuzin	Perfluoroheptanoic acid (PFHPA)
Chloroethane	Alachlor	Oxamyl (hydrate)	Perfluoroheptanoic acid (PFHPA)
Chloroethane	Aldicarb	Parasulf	Perfluoroheptanoic acid (PFHPA)
Chloroethane	Aldicarb sulfone	Perchlorate	Perfluoroheptanoic acid (PFHPA)
2-Chlorotoluene	Aldicarb sulfone	Picloram	Perfluoroheptanoic acid (PFHPA)
4-Chlorotoluene	Atrazine	Propachlor	Perfluoroheptanoic acid (PFHPA)
Dibromomethane	1,2-Dichlorobenzene	Simazine	Perfluoroheptanoic acid (PFHPA)
1,1-Dichloroethane	1,3-Dichlorobenzene	Bentazon	2, 3, 7, 8-TCDD (Dioxin)
1,2-Dichloroethane	1,4-Dichlorobenzene	Carbofuran	Perfluorotetradecanoic acid (PFTA)
1,1-Dichloroethene	Dibromomethane	Chlordane	Perfluorotetradecanoic acid (PFTA)
cis-1,2-Dichloroethene	1,1-Dichloroethane	Dibromochloropropane	Perfluorotetradecanoic acid (PFTA)
trans-1,2-Dichloroethene	1,2-Dichloroethane	2, 4-D	Mercury
1,2-Dichloropropane	1,1-Dichloroethene	Endrin	Nickel
1,3-Dichloropropane	cis-1,2-Dichloroethene	Ethylene Dibromide	Nitrite
2,2-Dichloropropane	trans-1,2-Dichloroethene	Heptachlor	Silver
2,2-Dichloropropane	1,2-Dichloropropane	Heptachlor Epoxide	Thallium
1,1-Dichloropropene	1,3-Dichloropropane	Lindane (gamma-BHC)	Zinc
1,3-Dichloropropene(cis)	2,2-Dichloropropane	Methoxychlor	Surfactants (Foaming Agents)
1,3-Dichloropropene(trans)	1,1-Dichloropropene	p,p' DDD	Cyrtosporidium
Ethylbenzene	1,3-Dichloropropene(cis)	p,p' DDE	Giardia Lamblia
Hexachlorobutadiene	1,3-Dichloropropene(trans)	p,p' DDT	Monobromoacetic acid
p-Propyltoluene	Ethylbenzene	PCB's Total	Monochloroacetic acid
Methyl Tert-butyl ether (MTBE)	Hexachlorobutadiene	Pentachlorophenol	Tribromoacetic acid
Methylene Chloride (Dichloromethane)	p-Propyltoluene	Toxaphene	Gross Alpha Particles
n-Propylbenzene	Methyl Tert-butyl ether (MTBE)	2, 4, 5-TP (Silvex)	Radium 226
Styrene	Methylene Chloride (Dichloromethane)	Aldrin	Radium 228
1,1,1,2-Tetrachloroethane	n-Propylbenzene	Butachlor	Combined Radium 226/228
1,1,2,2-Tetrachloroethane	Styrene	Carbaryl	Uranium
Tetrahydrofuran	1,1,2,2-Tetrachloroethane	Dalapon	11-chloroicosafuoro-3-oxadecane-1-sulfonic acid (11C-#F30U5)
Toluene	Tetrahydrofuran	Dij (2-Ethylhexyl) Adipate	1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8-2FTS)
1,2,3-Trichlorobenzene	Toluene	Dij (2-Ethylhexyl) phthalate (DEHP)	1H,1H, 2H, 2H-perfluorooctane sulfonic acid (4-2FTS)
1,2,4-Trichlorobenzene	1,2,3-Trichlorobenzene	Dieldrin	1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6-2FTS)
1,1,1-Trichloroethane	1,1,1-Trichloroethane	Dinoseb	4,8-dioxo-3H-perfluorooctanoic acid (ADONA)
1,1,2-Trichloroethane	1,1,2-Trichloroethane	1,4-Dioxane	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9C-#F30NS)
Toluene	Toluene	Diquat	Hexafluoropropylene oxide dimer acid (HFPD-DA)(GenX)
			N-ethyl Perfluorooctanesulfonamideacetic acid (NEFOSAA)
			N-methyl Perfluorooctanesulfonamideacetic acid (NMFOSEA)

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MONROE COUNTY WATER AUTHORITY

Abundant. Inexpensive. Pure.

The Monroe County Water Authority is the third largest water supplier in New York State, producing and delivering an average of 19.3 billion gallons of drinking water each year. As a public benefit corporation organized in 1950 under the New York State Public Authorities Law, our sole purpose is to provide you with quality water and reliable service at an affordable price.

Many communities have been unable to or unwilling to make the investments necessary to maintain their water systems. That's not the case with the Monroe County Water Authority. In 2023, we invested \$26.3 million in infrastructure improvements. Our commitment to efficiency and cost controls is shown in our water rate history. Our rates are below the national average and the lowest 25% for northeast U.S. suppliers. It costs an average Water Authority residential customer about \$28.50 a month for all the water they need.

The Monroe County Water Authority's 206 employees are dedicated to providing you all the clean, safe drinking water you need, whenever you need it.

This annual water quality report is being provided to all of our customers in compliance with U.S. Environmental Protection Agency (USEPA) and New York State

Department of Health (NYSDOH) regulations. For more information visit our website at www.MCWA.com.

Source and Treatment.

Our primary water source is Lake Ontario, one of North America's five Great Lakes. Surface water is treated at our Shoremont Plant in the town of Greece and at our Webster Plant in town of Webster. We also operate the Corfu Plant, a small groundwater source supply in the village of Corfu and purchase water from the city of Rochester (Rochester) and the Erie County Water Authority (ECWA). All the water supply sources we use are located within the Great Lakes watershed area. The boundaries between the supply areas change daily as we manage the sources to optimize delivery of water to our customers.

The New York State Department of Health has evaluated the susceptibility of water supplies statewide to potential contamination under the Source Water Assessment Program (SWAP). In general, the Great Lakes sources used by MCWA and ECWA are not very susceptible because of their size and quality. Hemlock and Canadice Lakes, sources for Rochester's Hemlock Plant, are not very susceptible because of their size and controlled watersheds. The groundwater aquifer source used by the Corfu Plant

is more susceptible, but the confined nature of the aquifer provides protection against the few nearby potential contamination sources. Because storm and wastewater contamination are potential threats to any source water, the water provided to our customers undergoes rigorous treatment and testing prior to its delivery.

The Shoremont and Webster Plants and the purchase water suppliers all use a similar treatment process that includes pH adjustment, coagulation, filtration, and disinfection. Coagulants are added to clump together suspended particles in the source waters, enhancing their removal during filtration. Chlorine is used to disinfect the water and to provide the residual disinfectant that preserves the quality of the water as it travels from each plant to your home. Fluoride is added to help prevent tooth decay. The treatment process at the Corfu Plant consists of filtration, softening, and disinfection with chlorine. These water treatment plants operate in compliance with all the NYSDOH and USEPA regulatory requirements that apply.

For more information on the SWAP and how you can help protect the source of your drinking water, contact MCWA's Customer Service Department at (585) 442-7200 or visit our website at www.MCWA.com.

MCWA STATISTICS

LAKE ONTARIO WATER WITHDRAWAL:	52.9	Million Gallons Per Day
AVERAGE SYSTEM USE:	57.1	Million Gallons Per Day
NON-BILLABLE WATER: (FIREFIGHTING, FLUSHING, MAINTENANCE, LEAKS)	7.75	Million Gallons Per Day
AVERAGE RESIDENTIAL ANNUAL COST:	\$341.90	Per Year
POPULATION SERVED:	793,318	Retail and Wholesale
NUMBER OF ACCOUNTS:	190,060	
MILES OF WATER MAINS:	3,450	
NUMBER OF FIRE HYDRANTS:	27,514	

Water Quality.

Last year your tap water met all federal and state drinking water health standards. The MCWA is proud to report that our system did not violate a maximum contaminate level or any other water quality standard. This report is an overview of last year's water quality. Drinking water sources (both tap and bottled water) include lakes, reservoirs, rivers and streams, springs, and groundwater wells. As water travels over land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from animal or human activities. Contaminates that may be present in untreated water include inorganic and organic chemicals, pesticides and herbicides, and radioactive and microbiological contaminants. In order to ensure that your tap water is safe to drink, the NYSDOH and USEPA establish regulations that set limits on contaminate levels in water provided by public water systems. These limits are known as Maximum Contaminate Levels (MCLs). The regulations also specify testing, reporting, and public notification for each contaminate. The MCWA's monitoring program substantially

exceeds NYSDOH and USEPA requirements. County and state Departments of Health also review our operating, monitoring, and testing data for regulatory compliance and independently monitor quality in our water distribution system.

Some constituents we tested for were detected but at concentrations well below the allowable MCLs. It is important to remember all 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 the water poses a risk to health. Additional information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to disease-causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as chemotherapy patients, organ transplant recipients, people with HIV / AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. USEPA / CDC (U.S. Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia, and other microbiological contaminants are available from the USEPA's Safe Drinking Water Hotline at 1-800-426-4791, the Monroe County Department of Public Health, 111 Westfall Road, Rochester, New York 14620, (585) 753-5564, or your local county health department.

Escherichia coli (E. coli) Bacteria.

Escherichia coli (E. coli) bacteria is a microbial pathogen whose presence indicates the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infant, young children, the elderly, and people with severely compromised immune systems.

One of 366 routine monthly water quality samples collected on October 31, 2023 indicated the presence of E. coli. We collected repeat water quality samples and found no E. coli bacteria present. This indicates the initial sample was a false-positive result. Therefore, no violation of the maximum contaminant level or MCL occurred and we returned to performing routine water quality monitoring.

Fluoride.

The MCWA is one of many New York state public water utilities providing water with a controlled, low level concentration of fluoride for consumer dental health protection. According to the U.S. Centers for Disease Control and Prevention, fluoride is very effective in preventing cavities when present at an optimum level of 0.7 mg/L. To ensure optimal dental protection, the NYSDOH requires that we monitor fluoride levels on a daily basis. In 2023, the fluoride levels in your water were within 0.2 mg/L of the CDC's recommended optimal level 99.6% of the time with an average concentration of 0.73 mg/L for water produced by the Shoremont and Webster Plants. The highest monitoring level was 0.98 mg/L, below the 2.2 mg/L MCL for fluoride in water.

Home Treatment Units.

There are businesses that sell home treatment units by telling you water supplied by the Monroe County Water is not safe. Save your money. The water we supply is consistently better than the drinking water regulations require and we can prove it.

Lead in Drinking Water.

Lead can cause serious health problems, especially for pregnant women, infants, and young children. There is no detectable lead in the water we deliver to your home. Lead in drinking water is primarily from lead-bearing materials and components associated with service lines and home plumbing. The Monroe County Water Authority is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. Although our testing indicates this is not a problem for our customers, it is possible that lead levels at your home might be higher than at other homes in the community as a result of materials used in your home's plumbing. You share the responsibility for protecting yourself and your family from 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.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your faucet tap for 30-seconds to 2-minutes before using water for drinking or cooking. 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, 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 at: www.MCWA.com/my-water/water-quality/my-water-lead or from the USEPA's Safe Drinking Water Hotline 1-800-426-4791 and website: www.EPA.gov/safewater/lead.

Taste and Odor.

Sometimes you may find your water tastes or smells like chlorine. The water is safe to drink. We are required to maintain a chlorine residual in the water supply distribution system to maintain water quality. To eliminate or reduce the taste of chlorine in your water, simply store tap water in a container overnight in your refrigerator. An inexpensive carbon media filter can also be used for this purpose.

Conservation.

Lake Ontario and the other Great Lakes provide an abundance of water to the communities we serve, and our customers greatly benefit by having this natural resource close to home. However, it takes power to treat and deliver water to your house. Therefore, conserving energy is helpful to providing clean, safe water to you.

Although our water rates are below the national average, no one wants to pay for water that is wasted whether by accident or on purpose. To save water, fix leaky faucets and toilets promptly, replace washer gaskets when garden hoses start to drip, and water your lawn in the early morning. After 10:00 am the sun's heat draws water from the lawn through evaporation. When you irrigate early, you can water less because more of the water is absorbed into the lawn and soil. To find more water saving tips, visit us online at: www.MCWA.com.

FOR MORE INFORMATION

If you have questions about this report, your bill, or Monroe County Water Authority operations, then call (585) 442-7200. To view the MCWA Board of Directors meeting schedule, visit us online at www.MCWA.com.

