

# MCWA Water Quality Summary Table

## 2022 Calendar Year Results -

Detected Substances:	Supply Source -			MCWA Production Water:		MCWA Purchased Water:		Likely Sources in Drinking Water:	Water Quality Violation: Yes or No	
	Source - (Source Type)			SWTP & WWTP -	CWTP -	Rochester -	ECWA -			
	Units	MCLG	MCL	Lake Ontario (Surface Water)	Well Field (Groundwater)	Hemlock Lake (Surface Water)	Lake Erie (Surface Water)			
	Range of detected values:									
Barium	mg/L	2	2	0.019 - 0.023	0.09 - 0.2	0.014	0.02	Erosion of natural deposits	No	
Chloride	mg/L	NA	250	25 - 29	49 - 93	27 - 38	19 - 24	Naturally occurring	No	
Fluoride	mg/L	NA	2.2	0.42 - 1.15	0.12 - 0.13	0.09 - 0.85	0.11 - 0.71	Naturally occurring & additive for dental health	No	
Manganese	µg/L	NA	300	ND	2.9 - 8.5	ND	ND	Naturally occurring	No	
Nitrate	mg/L	10	10	ND - 0.4	ND	ND	0.55	Erosion of natural deposits	No	
Perfluorooctanesulfonic acid (PFOS)	ng/L	NS	10	ND - 2.1	ND	ND	ND	Environmental releases from textile sources	No	
Perfluorobutanoic acid (PFBA)	ng/L	NS	10	ND - 2.8	ND	ND	ND - 2.7	Environmental releases from textile sources	No	
Sodium	mg/L	NA	NS	15 - 17	36 - 87 *	16 - 21 *	12 - 15	Naturally occurring	No	
Sulfate	mg/L	NA	250	25 - 27	44 - 48	10 - 26	19 - 22	Naturally occurring	No	
<b>Turbidity</b> - 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 (0.02 - 0.11) 100% < 0.3 NTU	NR	0.06 (ND - 0.15) 100% < 0.3 NTU	0.07 (0.01 - 0.26) 100% < 0.3 NTU	Soil Runoff	No	
Turbidity - Distribution	NTU	NA	5	4.22 - 3/24/2022	0.97 - 2/22/2022	4.22 - 3/24/2022	0.97 - 2/22/2022	Soil Runoff	No	
<b>Microbial Parameters</b> - No more than 5% of monthly samples can be positive. The highest monthly % positive and number of samples is listed.										
Total Coliform Bacteria	NA	0	TT	1.9% - August 7 samples	2.9% - October 1 sample	1.9% - August 7 samples	2.9% - October 1 sample	Naturally present in the environment	No	
<b>Disinfectant and Disinfectant By-products (DBPs)</b> - 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	1.14 (0.71 - 1.44) 0.83 (0.35 - 1.26)	1.11 (0.5 - 1.69)	0.83 (0.69 - 1.85)	1.54 (1.33 - 1.74)	Additive for control of microbes	No	
Chlorine Residual - Distribution	mg/L	NA	MRDL = 4	0.59 (ND - 1.85)	0.6 (ND - 1.55)	0.59 (ND - 1.85)	0.6 (ND - 1.55)	Additive for control of microbes	No	
Total Trihalomethanes (TTHMs)	µg/L	NA	80	38.6 (13 - 73) Max. LRAA = 55.8	41.5 (20 - 55) Max. LRAA = 46.5	38.6 (13 - 73) Max. LRAA = 55.8	41.5 (20 - 55) Max. LRAA = 46.5	Byproduct of water chlorination	No	
Haloacetic Acids (HAAs)	µg/L	NA	60	11.3 (ND - 30) Max. LRAA = 18.8	7.4 (ND - 32) Max. LRAA = 11.8	11.3 (ND - 30) Max. LRAA = 18.8	7.4 (ND - 32) Max. LRAA = 11.8	Byproduct of water chlorination	No	
<b>Lead and Copper</b> - 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. (2021 monitoring period)										
Copper - Customer Tap Samples	mg/L	1.3	AL = 1.3	0.130 (None) 0.008 - 0.47	0.142 (None) 0.004 - 0.29	0.130 (None) 0.008 - 0.47	0.142 (None) 0.004 - 0.29	Corrosion of household plumbing	No	
Lead - Customer Tap Samples	µg/L	0	AL = 15	3.2 (Two) ND - 130	0.63 (None) ND - 2.8	3.2 (Two) ND - 130	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.										
<b>Unregulated Contaminant Monitoring (UCMR4)</b> - The EPA issues a new list of no more than 30 unregulated contaminants 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. UCMR4 was published in 2016 and required public water systems to participate in monitoring between 2018 - 2020. MCWA performed UCMR4 monitoring in 2018, 2019, and 2020.										
Alcohols, Indicators, Metals, Pesticides, SVOCs, and Cyantoxins:	Entry Points:			Lake Ontario Supplies -		Purchased Water Supplies -		Groundwater Supply -	Water Quality Violation: Yes or No	
	Units	MCL		SWTP	WWTP	Rochester	ECWA	CWTP		
Manganese	µg/L	NA		ND	ND	ND	3.5 (0.77 - 6.3)	8.0 (6 - 10)	NA	
Bromide	µg/L	NA		36.3 (36 - 37)	36 (34 - 37)	ND - 22	NR	NR	NA	
Total Organic Carbon	mg/L	NA		2.3 (2 - 2.4)	2.2 (1.9 - 2.3)	2.48 - 2.68	NR	NR	NA	
HAA Groups:	Distribution System:			Combined System Summary:						
Total HAA (5)	µg/L	60		14.1 (0.74 - 31)						No
Total HAA (6) Br	µg/L	NA		7.4 (ND - 12)						NA
Total HAA (9)	µg/L	NA		21 (7.4 - 42)						NA
Bromochloroacetic acid	µg/L	NA		2.2 (ND - 4.4)						NA
Bromodichloroacetic acid	µg/L	NA		3.1 (ND - 5.9)						NA
Chlorodibromoacetic acid	µg/L	NA		1 (ND - 1.6)						NA
Dibromoacetic acid	µg/L	NA		0.5 (ND - 1.4)						NA
Dichloroacetic acid	µg/L	NA		6 (0.74 - 15)						NA
Trichloroacetic acid	µg/L	NA		7.5 (ND - 15)						NA

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

## Key Terms and Abbreviations Used:

**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 allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**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.

**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 / Not reported. **NS** = No standard.

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

**µg/L** = Microgram (1/1,000,000 of a gram) per Liter = ppb = parts per billion.

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

**NTU** = Nephelometric Turbidity Unit - A measurement of water clarity.

**CWTP** = Corfu Water Treatment Plant. **SWTP** = Shoremnt 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	Glyphosate	Monochloroacetic acid
Bromobenzene	1,2,3-Trichloropropane	Hexachlorobenzene	Tribromoacetic acid
Bromochloromethane	1,2,4-Trimethylbenzene	Hexachlorocyclopentadiene	Gross Alpha Particles
Bromomethane	1,3,5-Trimethylbenzene	3-Hydroxycarbofuran	Radium 226
n-Butylbenzene	Vinyl Chloride	3,5-Dichlorobenzoic Acid	Radium 228
sec-Butylbenzene	o-Xylene	Methomyl	Combined Radium 226/228
tert-Butylbenzene	m, p-Xylene	Metolachlor	Uranium
Carbon Tetrachloride	Total Xylene	Metribuzin	11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
Chlorobenzene	Acifluorfen	Oxamyl (vydate)	1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)
Chloroethane	Alachlor	Paraquat	1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)
Chloromethane	Aldicarb	Perchlorate	1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)
2-Chlorotoluene	Aldicarb sulfoxide	Picloram	4,8-dioxa-3H-perfluorononanoic acid (ADONA)
4-Chlorotoluene	Aldicarb sulfone	Propachlor	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)
Dibromomethane	Atrazine	Simazine	Hexafluoropropylene oxide dimer acid (HFPO-DA)(GenX)
1,2-Dichlorobenzene	Baygon	2, 3, 7, 8-TCDD (Dioxin)	N-ethyl Perfluorooctanesulfonamidoacetic acid (NETFOSAA)
1,3-Dichlorobenzene	Bentazon	Antimony	N-methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA)
1,4-Dichlorobenzene	Carbofuran	Beryllium	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
Dichlorodifluoromethane	Chlordane	Chromium	Perfluoro (2-ethoxyethane) sulfonic acid (PFEEASA)
1,1 Dichloroethane	Dibromochloropropane	Cyanide	Perfluoro-3-methoxypropanoic acid (PFMPPA)
1,2-Dichloroethane	2, 4-D	Mercury	Perfluoro-4-methoxybutanoic acid (PFMBA)
1,1-Dichloroethene	Endrin	Nickel	Perfluorobutanesulfonic acid (PFBS)
cis-1,2-Dichloroethene	Ethylene Dibromide	Nitrite	Perfluorodecanoic acid (PFDA)
trans-1,2-Dichloroethene	Heptachlor	Selenium	Perfluorododecanoic acid (PHDOA)
1,2-Dichloropropane	Heptachlor Epoxide	Silver	Perfluoroheptanesulfonic acid (PFHpS)
1,3-Dichloropropane	Lindane (gamma-BHC)	Thallium	Perfluoroheptanoic acid (PFHpA)
2,2-Dichloropropane	Methoxychlor	Zinc	Perfluorohexanesulfonic acid (PFHxS)
1,1-Dichloropropene	p,p' DDD	Surfactants (Foaming Agents)	Perfluorohexanoic acid (PFHxA)
1,3-Dichloropropene(cis)	p,p' DDE	Giardia Lamblia	Perfluorononoic acid
1,3-Dichloropropene(trans)	p,p' DDT	Germanium	Perfluorooctanoic acid (PFOA)
Ethylbenzene	PCB's Total	alpha-Hexachlorocyclohexane	Perfluoropentanesulfonic acid (PFPeS)
Hexachlorobutadiene	Pentachlorophenol	Chlorpyrifos	Perfluoropentanoic acid (PFPeA)
p-Isopropyltoluene	Toxaphane	Dimethipin	Perfluorotetradecanoic acid
Methyl Tert-butyl ether (MTBE)	2, 4, 5-TP (Silvex)	Ethoprop	Perfluorotridecanoic acid
Methylene Chloride (Dichloromethane)	Aldrin	Oxyfluoren	Perfluoroundecanoic acid
n-Propylbenzene	Benzo(a)pyrene	Profenofos	Total Microcystin
Styrene	Butachlor	Tebuconazole	Microcystin-LA
1,1,1,2-Tetrachloroethane	Carbaryl	Permethrin, cis & trans	Microcystin-LF
1,1,2,2-Tetrachloroethane	Dalapon	Tribufos	Microcystin-LR
Tetrachloroethene	Di(2-Ethylhexyl) Adipate	Butylated hydroxyanisole	Microcystin-LY
Toluene	Di(2-Ethylhexyl) phthalate (DEHP)	o-Toluidene	Microcystin-RR
1,2,3-Trichlorobenzene	Dicamba	Quinoline	Microcystin-YY
1,2,4-Trichlorobenzene	Dieldrin	1-Butanol	Nodularin
1,1,1-Trichloroethane	Dinoseb	2-Methoxyethanol	Anatoxin-A
1,1,2-Trichloroethane	Diquat	2-Propen-1-ol	Cylindrospermopsin
Trichloroethene	Endothall	Monobromoacetic acid	

SCAN CODE FOR AWQR REPORT:

