

MCWA Water Quality Summary Table

2021 Calendar Year Results -

Detected Substances:	Supply Source -			MCWA Production Water:		MCWA Purchased Water:		Likely Sources in Drinking Water:	Water Quality Violation:	
	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:								Yes or No	
Barium	mg/L	2	2	0.018 - 0.023	0.09 - 0.1	0.016	0.02	Erosion of natural deposits	No	
Chloride	mg/L	NA	250	26 - 58	41 - 82	38 - 40	20 - 23	Naturally occurring	No	
Fluoride	mg/L	NA	2.2	0.34 - 0.95	0.11 - 0.14	0.09 - 0.77	0.1 - 0.7	Naturally occurring & additive for dental health	No	
Nitrate	mg/L	10	10	ND - 0.35	ND	ND	0.29	Erosion of natural deposits	No	
1, 4-Dioxane	µg/L	NA	1	ND	ND	ND	ND - 0.086	Environmental releases from textile sources	No	
Perfluorooctanesulfonic acid	ng/L	NS	10	ND - 2.8	ND	ND	ND	Environmental releases from textile sources	No	
Perfluorooctanoic acid	ng/L	NS	10	ND - 2.3	ND	ND	ND	Environmental releases from textile sources	No	
Sodium	mg/L	NA	NS	15 - 17	77 - 100 *	20 - 21 *	12 - 14	Naturally occurring	No	
Sulfate	mg/L	NA	250	26 - 46	25 - 46	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 (0.02 - 0.11) 100% < 0.3 NTU	NR	0.05 (0.02 - 0.1) 100% < 0.3 NTU	0.11 (0.04 - 0.172) 100% < 0.3 NTU	Soil Runoff	No	
Turbidity - Distribution	NTU	NA	5	2.91 - 6/10/2021	1.43 - 2/09/2021	2.91 - 6/10/2021	1.43 - 2/09/2021	Soil Runoff	No	
Microbial Parameters - No more than 5% of monthly samples can be positive. The highest monthly % positive and number of samples is listed. Since we had 5 total coliform positive samples in September in the town of Darien, we triggered a Level 1 Assessment. This assessment is to assess the coliform contamination and take corrective action against defects in the water system.										
Total Coliform Bacteria	NA	0	TT	None Detected.	13.2% - September 5 samples	None Detected.	13.2% - September 5 samples	Naturally occurring	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 (0.34 - 1.34) 0.81 (0.48 - 1.05)	0.98 (0.58 - 1.59)	0.91 (0.46 - 1.67)	1.57 (1.25 - 1.91)	Additive for control of microbes	No	
Chlorine Residual - Distribution	mg/L	NA	MRDL = 4	0.57 (ND - 2.7)	0.56 (ND - 1.41)	0.57 (ND - 2.7)	0.56 (ND - 1.41)	Additive for control of microbes	No	
Total Trihalomethanes (TTHMs)	µg/L	NA	80	36.1 (7.9 - 64) Max. LRAA = 49	44.3 (22 - 66) Max. LRAA = 58.8	36.1 (7.9 - 64) Max. LRAA = 49	44.3 (22 - 66) Max. LRAA = 58.8	Byproduct of water chlorination	No	
Haloacetic Acids (HAAs)	µg/L	NA	60	10.9 (ND - 30) Max. LRAA = 24	6.1 (ND - 14) Max. LRAA = 7.2	10.9 (ND - 30) Max. LRAA = 24	6.1 (ND - 14) Max. LRAA = 7.2	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.										
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.										
Unregulated Contaminant Monitoring (UCMR4) - 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

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	1,2,3-Trichlorobenzene	Di(2-Ethylhexyl) Adipate	Profenofos
Bromobenzene	1,2,4-Trichlorobenzene	Di(2-Ethylhexyl) phthalate (DEHP)	Tebuconazole
Bromochloromethane	1,1,1-Trichloroethane	Dicamba	Permethrin, cis & trans
Bromomethane	1,1,2-Trichloroethane	Dieldrin	Tribufos
n-Butylbenzene	Trichloroethene	Dinoseb	Butylated hydroxyanisole
sec-Butylbenzene	Trichlorofluoromethane	Diquat	o-Toluidene
tert-Butylbenzene	1,2,3-Trichloropropane	Endothall	Quinoline
Carbon Tetrachloride	1,2,4-Trimethylbenzene	Glyphosate	1-Butanol
Chlorobenzene	1,3,5-Trimethylbenzene	Hexachlorobenzene	2-Methoxyethanol
Chloroethane	Vinyl Chloride	Hexachlorocyclopentadiene	2-Propen-1-ol
Chloromethane	o-Xylene	3-Hydroxycarbofuran	Monobromoacetic acid
2-Chlorotoluene	m, p-Xylene	Methomyl	Monochloroacetic acid
4-Chlorotoluene	Total Xylene	Metolachlor	Tribromoacetic acid
Dibromomethane	Alachlor	Metribuzin	N-ethyl Perfluorooctanesulfonamidoacetic acid
1,2-Dichlorobenzene	Aldicarb	Oxamyl (vydate)	N-methyl Perfluorooctanesulfonamidoacetic acid
1,3-Dichlorobenzene	Aldicarb sulfoxide	Perchlorate	Perfluorobutanesulfonic acid
1,4-Dichlorobenzene	Aldicarb sulfone	Picloram	Perfluorodecanoic acid
Dichlorodifluoromethane	Atrazine	Propachlor	Perfluorododecanoic acid
1,1 Dichloroethane	Carbofuran	Simazine	Perfluoroheptanoic acid
1,2-Dichloroethane	Chlordane	2, 3, 7, 8-TCDD (Dioxin)	Perfluorohexanoic acid
1,1-Dichloroethene	Dibromochloropropane	Antimony	Perfluoronononic acid
cis-1,2-Dichloroethene	2, 4-D	Beryllium	Perfluorotetradecanoic acid
trans-1,2-Dichloroethene	Endrin	Chromium	Perfluorotridecanoic acid
1,2-Dichloropropane	Ethylene Dibromide	Cyanide	Perfluoroundecanoic acid
1,3-Dichloropropane	Heptachlor	Mercury	Total Microcystin
2,2-Dichloropropane	Heptachlor Epoxide	Nickel	Microcystin-LA
1,1-Dichloropropene	Lindane (gamma-BHC)	Nitrite	Microcystin-LF
1,3-Dichloropropene(cis)	Methoxychlor	Selenium	Microcystin-LR
1,3-Dichloropropene(trans)	p,p' DDD	Silver	Microcystin-LY
Ethylbenzene	p,p' DDE	Thallium	Microcystin-RR
Hexachlorobutadiene	p,p' DDT	Zinc	Microcystin-YR
p-Isopropyltoluene	PCB's Total	Surfactants (Foaming Agents)	Nodularin
Methyl Tert-butyl ether (MTBE)	Pentachlorophenol	Cryptosporidium	Anatoxin-A
Methylene Chloride (Dichloromethane)	Toxaphane	Giardia Lamblia	Cylindrospermopsin
n-Propylbenzene	2, 4, 5-TP (Silvex)	Germanium	Gross Alpha Particles
Styrene	Aldrin	alpha-Hexachlorocyclohexane	Radium 226
1,1,1,2-Tetrachloroethane	Benzo(a)pyrene	Chlorpyrifos	Radium 228
1,1,2,2-Tetrachloroethane	Butachlor	Dimethipin	Combined Radium 226/228
Tetrachloroethene	Carbaryl	Ethoprop	Uranium
Toluene	Dalapon	Oxyfluoren	

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.