

MCWA Water Quality Summary Table

2020 Calendar Year Results -

Detected Substances:	Supply -		MCWA Production Water:		MCWA Purchased Water:		Likely Source:	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	0.019 - 0.023	0.1 - 0.11	0.017	0.021	Erosion of natural deposits	No
Chloride	mg/L	NA	250	22 - 29	48 - 68	37 - 39	21 - 24	Naturally occurring	No
Fluoride	mg/L	NA	2.2	0.5 - 1	0.11 - 0.14	0.08 - 0.78	0.58 - 0.8	Natural and additive - promotes strong teeth	No
Nitrate	mg/L	10	10	0.21 - 0.39	ND	0.25	0.32	Erosion of natural deposits	No
Perfluorohexanesulfonic acid	ng/L	NS	NS	ND - 2	ND	ND	ND	Used to manufacture textiles	No
Perfluorooctanesulfonic acid	ng/L	NS	10	2.5 - 2.8	ND	ND	ND	Used to manufacture textiles	No
Perfluorooctanoic acid	ng/L	NS	10	ND - 2.2	ND	ND	ND	Used to manufacture textiles	No
Sodium	mg/L	NA	NS	14 - 17	46 - 100 *	19 - 21 *	12 - 14	Naturally occurring	No
Sulfate	mg/L	NA	250	25 - 28	48 - 52	12	20 - 21	Naturally occurring	No

Turbidity - Turbidity is a measure of cloudiness 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 - 0.09) 100% < 0.3 NTU	NR	0.06 (0.04 - 0.1) 100% < 0.3 NTU	0.1 (0.04 - 0.18) 100% < 0.3 NTU	Soil Runoff	No
Turbidity - Distribution	NTU	NA	5	7 - 11/19/2020	0.88 - 7/30/2020	7 - 11/19/2020	0.88 - 7/30/2020	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.

Total Coliform Bacteria	NA	0	TT	0.39% - November 2 samples	2.86% - March 1 sample	0.39% - November 2 samples	2.86% - March 1 sample	Naturally occurring	No
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Source Water Microbial Pathogens - The highest positive month and number of samples is listed. In our treatment processes, Cryptosporidium is removed / inactivated through a combination of filtration and disinfection or by disinfection alone.

Cryptosporidium	Cysts/L	0	TT	WWTP - 1 (March) 1 Sample	NR	ND	ND (2017)	Naturally occurring	No
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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 average, range for all locations, and highest locational running annual average for all locations are listed.

Chlorine Residual - Entry Point	mg/L	NA	MRDL = 4	1.15 (0.78 - 1.38) 0.77 (0.46 - 0.97)	0.84 (0.71 - 1.1)	0.84 (0.71 - 1.1)	1.49 (1.29 - 1.64)	Additive for control of microbes	No
Chlorine Residual - Distribution	mg/L	NA	MRDL = 4	0.55 (ND - 1.83)	0.53 (ND - 1.27)	0.55 (ND - 1.83)	0.53 (ND - 1.27)	Additive for control of microbes	No
Total Trihalomethanes (TTHMs)	µg/L	NA	80	34.7 (16 - 58) Max. LRAA = 46.5	40 (18 - 63) Max. LRAA = 53	34.7 (16 - 58) Max. LRAA = 46.5	40 (18 - 63) Max. LRAA = 53	Byproduct of water chlorination	No
Haloacetic Acids (HAAs)	µg/L	NA	60	9.7 (ND - 22) Max. LRAA = 14.8	10.7 (3.1 - 23) Max. LRAA = 11.5	9.7 (ND - 22) Max. LRAA = 14.8	10.7 (3.1 - 23) Max. LRAA = 11.5	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. (2018 Monitoring period)

Copper - Customer Tap Samples	mg/L	1.3	AL = 1.3	0.160 (None) 0.005 - 0.200	0.110 (None) 0.005 - 0.240	0.160 (None) 0.005 - 0.200	0.110 (None) 0.005 - 0.240	Corrosion of household plumbing	No
Lead - Customer Tap Samples	µg/L	0	AL = 15	7.2 (Two) ND - 29	3.0 (One) ND - 76	7.2 (Two) ND - 29	3.0 (One) ND - 76	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) - Every few years the USEPA issues a new list of up to 30 unregulated contaminants for which public water systems must monitor. This provides baseline occurrence data that the EPA combines with toxicological research to make decisions about future drinking water regulations. MCWA monitor for the fourth list from 2018 - 2020. For more information on this process go to <https://drinkingwater.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR>.

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

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.