



Monroe County Water Authority

2023 Water Quality Monitoring Program Summary

SCAN CODE FOR AWQR REPORT:



Water Quality Monitoring Parameters				MCWA - SWTP			MCWA - WWTP			MCWA - CWTP			Rochester			ECWA - VWTP		
				Source - Lake Ontario			Source - Lake Ontario			Source - Groundwater Well(s)			Source - Hemlock Lake			Source - Lake Erie		
	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023
<u>Inorganics, Metals, & Physical Parameters:</u>																		
Asbestos (Distribution System)	7	7	MF/L	ND		1 (2016)	ND		1 (2016)	ND		1 (2016)	ND		1 (2023)	ND		30 (2015)
Aluminum	NS	NS	µg/L	46.8	24 - 67	4	57	26 - 110	4	1.8	ND - 7.3	4	2.0	ND - 8.1	4	167	51 - 380	4
Antimony	6	6	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Arsenic	10	NA	µg/L	ND		4	ND		4	ND		4	ND		4	ND		4
Barium	2	2	mg/L	0.02	0.018 - 0.021	4	0.02	0.018 - 0.02	4	0.09	0.09 - 0.1	4	0.014	0.014	1	0.02	0.02	1
Beryllium	4	4	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Bromide	NS	NS	µg/L	ND		4	ND		4	NR			ND		1	ND		1
Cadmium	5	5	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Calcium	NS	NS	mg/L	34	32 - 35	4	33.8	32 - 35	4	43.8	42 - 45	4	26	25 - 27	4	31.5	31 - 32	4
Chromium	100	100	µg/L	ND		4	ND		4	0.65	ND - 2.6	4	ND		1	ND		1
Copper (Distribution System Samples)	NS	NS	µg/L	ND		4	ND		4	18.3	16 - 21	4	1.5	ND - 4	4	0.38	ND - 1.5	4
Copper (Customer Tap Samples)	AL ¹ = 1300	1300	µg/L	259	2.3 - 680	131	259	2.3 - 680	131	142	3.8 - 290	22 (2021)	259	2.3 - 680	131	142	3.8 - 290	22 (2021)
Cyanide	200	200	µg/L	ND		4	ND		4	ND		4	ND		4	ND		4
Fluoride	2.2	NA	mg/L	0.72	0.2 - 0.96	2,084	0.74	0.56 - 0.98	2,021	0.14	0.13 - 0.15	4	0.68	0.08 - 0.77	1,081	0.63	0.2 - 0.73	49
Iron	300	NA	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Lead (Distribution System)	NS	NS	µg/L	ND		4	ND		4	ND		4	ND		4	ND		4
Lead (Customer Tap Samples)	AL ¹ = 15	0	µg/L	7.2	ND - 53	131	7.2	ND - 53	131	0.63	ND - 2.8	22 (2021)	7.2	ND - 53	131	0.63	ND - 2.8	22 (2021)
Magnesium	NS	NS	mg/L	8.6	8.6	1	9	8.9 - 9.1	2	17	17	1	6.4	6.4	1	8.3	8.3	1
Manganese	300	NA	µg/L	ND		4	ND		4	13.8	6.1 - 21	4	ND		1	ND		1
Mercury	2	2	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Nickel	100	NA	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Nitrate	10	10	mg/L	0.26	0.1 - 0.43	4	0.22	ND - 0.5	4	ND		4	ND		1	0.28	0.28	1
Nitrite	1	1	mg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Potassium	NS	NS	mg/L	1.7	1.7	1	1.7	1.7	1	0.95	0.95	1	ND		1	1.5	1.5	1
Selenium	50	50	µg/L	ND		4	0.9	ND - 3.6	4	1.8	ND - 7.1	4	ND		1	ND		1
Silica	NS	NS	mg/L	1.2	1 - 1.6	4	0.91	0.32 - 1.8	4	12	7.4 - 17	4	1.5	0.54 - 2	4	0.7	0.26 - 1.5	4
Silver	100	NA	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Sodium	NS	NS	mg/L	14.8	14 - 16	4	16.3	16 - 17	4	88.8	81 - 94	4	20	19 - 21	4	12.5	12 - 14	4
Sulfate	250	NA	mg/L	25.8	25 - 27	4	26	24 - 27	4	51.8	46 - 59	4	11.3	11 - 12	4	19.5	19 - 20	4

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				Source - Lake Ontario			Source - Lake Ontario			Source - Groundwater Well(s)			Source - Hemlock Lake			Source - Lake Erie		
	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023
Thallium	2	0.5	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Zinc	5	NA	mg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Alkalinity	NS	NA	mg/L	91	89 - 92	4	91.3	89 - 93	4	253	250 - 260	4	73.3	71 - 77	4	93.3	90 - 96	4
Chloride	250	NA	mg/L	25.3	23 - 26	4	27.8	27 - 29	4	60.8	49 - 84	4	37.5	35 - 39	4	21	20 - 22	4
Color	15	NA	Color Units	ND		4	ND		4	ND		4	ND		4	ND		4
Conductivity	NS	NS	µmhos/cm	303	290 - 320	48	315	300 - 330	46	729	570 - 890	48	306	287 - 338	55	290	273 - 298	49
pH	NS	NS	pH units	7.46	7.2 - 8.24	365	7.46	7.1 - 7.91	338	7.37	7.18 - 7.52	149	7.8	7.3 - 8.16	364	7.97	7.04 - 8.44	4,350
Total Dissolved Solids	NS	NS	mg/L	173	160 - 180	4	193	170 - 240	4	433	420 - 460	4	163	150 - 170	4	163	160 - 170	4
Total Hardness	NS	NS	mg/L	123	120 - 130	4	123	120 - 130	4	175	170 - 180	4	91	87 - 95	4	113	110 - 120	4
Total Organic Carbon	TT	NS	mg/L	1.65	1.5 - 1.7	4	1.8	1.7 - 1.9	4	1.23	0.95 - 1.9	4	2.45	2.3 - 2.6	4	1.85	1.7 - 2.1	4
Surfactants	NS	NS	mg/L	ND		4	ND		4	ND		4	ND		4	ND		4
Turbidity - Entry Point	TT ²	NA	NTUs	0.04	0.01 - 0.09	2,188	0.04	0.01 - 0.08	2,016	0.53	0.11 - 2.29	48	0.05	0.03 - 0.14	2,179	0.08	0.03 - 0.9	3,267
Turbidity - Distribution System	TT ³	NA	NTUs	0.12	0.03 - 2.44	4,181	0.12	0.03 - 2.44	4,181	0.13	0.03 - 2.36	391	0.12	0.03 - 2.44	4,181	0.13	0.03 - 2.36	391
Chlorine Residual - Entry Point	4	NA	mg/L	1.16	0.83 - 1.33	2,188	0.82	0.54 - 1.05	2,016	1.14	0.62 - 1.65	144	0.9	0.71 - 1.37	2,168	1.41	0.62 - 1.86	4,350
Chlorine Residual - Retail Distribution System	4 ⁴	NA	mg/L	0.6	ND - 2.03	4,185	0.6	ND - 2.03	4,185	0.7	ND - 1.7	391	0.6	ND - 2.03	4,185	0.7	ND - 1.7	391
Microbiological Parameters:																		
Coliform - Retail Distribution System	TT ⁵	0	NA	2 positive samples - 0.05%		4,185	2 positive samples - 0.05%		4,185	0 positive samples - 0%		391	2 positive samples - 0.05%		4,185	0 positive samples - 0%		391
				September: 1 positive sample - 0.3%			September: 1 positive sample - 0.3%			None Detected.			September: 1 positive sample - 0.3%			None Detetced.		
Escherichia coli - Bacteria (Retail Distribution System)	1	0	NA	1 positive sample.		4,185	1 positive sample.		4,185	0 positive samples.		391	1 positive sample.		4,185	0 positive samples.		391
				October 31, 2023.			October 31, 2023.			None Detected.			October 31, 2023.			None Detetced.		
Cryptosporidium (source water prior to treatment)	TT	0	OoCysts/L	ND		4	ND		4	NR		NR	ND		1	NR		NR
				None Detected.			None Detected.			NR			None Detected.			NR		
Giardia Lamblia (source water prior to treatment)	TT	0	Cysts/L	ND		4	ND		4	NR		NR	ND		1	NR		NR
				None detected.			None detected.			NR			None detected.			NR		
Radionuclides:																		
Gross Alpha Particle	15	0	pCi/L	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)
Gross Beta Particle / Photon Emitters	50	0	pCi/L	NR		0 (2021)	NR		0 (2021)	NR		0 (2021)	NR		0 (2021)	NR		0 (2021)
Radium 226	NS	NA	pCi/L	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)
Radium 228	NS	NA	pCi/L	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)
Combined Radium 226/228	5	0	pCi/L	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)
Uranium	30	0	pCi/L	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)	ND		1 (2021)

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	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023					
Volatile Organic Compounds:																							
Benzene	5	0	µg/L	Not Detected		4	Not Detected		4	Not Detected		4	Not Detected		4	Not Detected		4					
Bromobenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	
Bromochloromethane	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
Bromomethane	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
n-Butylbenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
sec-Butylbenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
tert-Butylbenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
Carbon Tetrachloride	5	0	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
Chlorobenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
Chloroethane	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
Chloromethane	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
2-Chlorotoluene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
4-Chlorotoluene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
Dibromomethane	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,2-Dichlorobenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,3-Dichlorobenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,4-Dichlorobenzene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
Dichlorodifluoromethane	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,1 Dichloroethane	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,2-Dichloroethane	5	0	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,1-Dichloroethene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
cis-1,2-Dichloroethene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
trans-1,2-Dichloroethene	5	NA	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,2-Dichloropropane	5	0	µg/L		4	4		4	4		4	4		4	4		4	4	4	4	4	4	4
1,3-Dichloropropane	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
2,2-Dichloropropane	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
1,1-Dichloropropene	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
1,3-Dichloropropene (Cis)	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
1,3-Dichloropropene (Trans)	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
Ethylbenzene	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
Hexachlorobutadiene	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
Isopropylbenzene	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					
p-Isopropyltoluene	5	NA	µg/L	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4					

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	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023		
Methyl Tert-butyl ether (MTBE)	10	NA	µg/L	Not Detected		4	Not Detected		4	Not Detected		4	Not Detected		4	Not Detected		4		
Methylene Chloride (Dichloromethane)	5	0	µg/L			4			4											
n-Propylbenzene	5	NA	µg/L			4			4											
Styrene	5	NA	µg/L			4			4											
1,1,1,2-Tetrachloroethane	5	NA	µg/L			4			4											
1,1,2,2-Tetrachloroethane	5	NA	µg/L			4			4											
Tetrachloroethene	5	0	µg/L			4			4											
Toluene	5	NA	µg/L			4			4											
1,2,3-Trichlorobenzene	5	NA	µg/L			4			4											
1,2,4-Trichlorobenzene	5	NA	µg/L			4			4											
1,1,1-Trichloroethane	5	NA	µg/L			4			4											
1,1,2-Trichloroethane	5	3	µg/L			4			4											
Trichloroethene	5	0	µg/L			4			4											
Trichlorofluoromethane	5	NA	µg/L			4			4											
1,2,3-Trichloropropane	5	NA	µg/L			4			4											
1,2,4-Trimethylbenzene	5	NA	µg/L			4			4											
1,3,5-Trimethylbenzene	5	NA	µg/L			4			4											
Vinyl Chloride	2	0	µg/L			4			4											
Xylenes	5	NA	µg/L	4	4															
Organics, Pesticides, & Herbicides:				Not Detected		1	Not Detected		1	Not Detected		1	Not Detected		1	Not Detected		1		
1, 2-Dibromo-3-Chloropropane	200	0	ng/L																1	1
1, 2-Dibromoethane (EDB)	50	0	ng/L																1	1
2, 4, 5-TP (Silvex)	10	NA	µg/L																1	1
2, 4-D	50	NA	µg/L																1	1
3-Hydroxycarbofuran	50	NS	µg/L																1	1
1, 2-Dibromo-3-Chloropropane (DBCP)	200	0	ng/L																1	1
1, 2-Dibromoethane (EDB)	50	0	ng/L																1	1
2, 4, 5-TP (Silvex)	10	NA	µg/L																1	1
2, 4-D	50	NA	µg/L																1	1
3-Hydroxycarbofuran	50	NS	µg/L																1	1
3, 5-Dichlorobenzoic Acid	50	NS	µg/L																1	1
Acifluorfen	50	NS	µg/L																1	1
Alachlor	2	0	µg/L																4	4

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	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023
Aldicarb	3	1	µg/L	Not Detected		1	Not Detected		1	Not Detected		1	Not Detected		1	Not Detected		1
Aldicarb Sulfone	2	1	µg/L			1			1									
Aldicarb Sulfoxide	4	1	µg/L			1			1									
Aldicarb	3	1	µg/L			1			1									
Aldrin	5	NA	µg/L			4			4									
Atrazine	3	3	µg/L			4			4									
Baygon	50	NS	µg/L			1			1									
Bentazon	50	NS	µg/L			1			1									
Benzo(a)pyrene	200	0	ng/L			4			4									
Bis(2-Ethylhexyl)Phthalate (DEHP)	6	0	µg/L			4			4									
Butachlor	50	NA	µg/L			4			4									
Carbaryl	50	NA	µg/L			1			1									
Carbofuran	40	40	µg/L			1			1									
Carbaryl	50	NA	µg/L			1			1									
Carbofuran	40	40	µg/L			1			1									
Chlordane	2	NA	µg/L			4			4									
Dalapon	50	NA	µg/L			1			1									
Dacthal (DCPA, Mono & Di-Acid Degradate)	50	NS	µg/L			1			1									
Dalapon	50	NA	µg/L			1			1									
DCPA, Mono & Di-Acid Degradate	50	NS	µg/L			1			1									
Di(2-Ethylhexyl) Adipate	50	NA	µg/L			4			4									
Dicamba	50	NA	µg/L			1			1									
Dicamba	50	NA	µg/L			1			1									
Dieldrin	5	NA	µg/L			4			4									
Dinoseb	7	7	µg/L			1			1									
Dioxin	30	0	pg/L			1			1									
Diquat	20	20	µg/L			1			1									
Endothall	50	NA	µg/L			1			1									
Dinoseb	7	7	µg/L			1			1									
1, 4-Dioxane	1	NA	µg/L			4			4									
Dioxin	30	0	pg/L			1			1									
Diquat	20	20	µg/L			1			1									
Endothall	50	NA	µg/L	1	1													
Endrin	2	2	µg/L	4	4													

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	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023															
Glyphosate	50	700	µg/L	Not Detected		1	Not Detected		1	Not Detected		1	Not Detected		1	Not Detected		1															
Heptachlor	400	0	ng/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Heptachlor Epoxide	200	0	ng/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Hexachlorobenzene	1	0	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Hexachlorocyclopentadiene	5	NA	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Isophorone	50	NA	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Lindane (gamma-BHC)	200	200	ng/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Methomyl	50	NA	µg/L			1													1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Methoxychlor	40	40	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Metolachlor	50	NA	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Metribuzin	50	NA	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Oxamyl	50	NA	µg/L			1													1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
p,p' DDD	5	NA	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
p,p' DDE	NS	NS	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
p,p' DDT	5	NA	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
PCB's Total	500	0	ng/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Pentachlorophenol	1	0	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Perchlorate	NS	NS	µg/L			1													1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pichloram	50	NA	µg/L			1													1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Perchlorate	NS	NS	µg/L			1													1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Perfluorooctanesulfaonic Acid (PFOS)	10	NA	ng/L	0.6	ND - 2.4	4	0.5	ND - 2.1	4	Not Detected	8	Not Detected	4	Not Detected	4	Not Detected	4	4															
Perfluorooctanoic Acid (PFOA)	10	NA	ng/L	Not Detected		4	Not Detected		4	Not Detected		8	Not Detected		4	Not Detected		4															
Pichloram	50	NA	µg/L			1													1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Propachlor	50	NA	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Simazine	4	4	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Total Chlordane	2	0	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Toxaphene	3	0	µg/L			4													4	4	4	4	4	4	4	4	4	4	4	4	4	4	
Disinfection By-products:																																	
Total Trihalomethanes (TTHMs)	80	NA	µg/L			39													2 - 79	52	39	2 - 79	52	50	24 - 92	8	39	2 - 79	52	50	24 - 92	8	
				Maximum LRAA = 57			Maximum LRAA = 57			Maximum LRAA = 57			Maximum LRAA = 57			Maximum LRAA = 57																	
Haloacetic Acids (HAA5)	60	NA	µg/L	11.5	ND - 35	52	11.5	ND - 35	52	9.6	ND - 24	8	11.5	ND - 35	52	9.6	ND - 24	8															
				Maximum LRAA = 19.3			Maximum LRAA = 19.3			Maximum LRAA = 16.9			Maximum LRAA = 19.3			Maximum LRAA = 16.9																	

Water Quality Monitoring Parameters				MCWA - SWTP			MCWA - WWTP			MCWA - CWTP			Rochester			ECWA - VWTP		
				Source - Lake Ontario			Source - Lake Ontario			Source - Groundwater Well(s)			Source - Hemlock Lake			Source - Lake Erie		
	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023
UCMR5 & NYS Emerging Contaminants - Per & Polyfluorinated Alkyl Acids (PFAS):																		
11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	NS	NS	ng/L	Not Detected		4	Not Detected		4	Not Detected		8	Not Detected		4	Not Detected		4
1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	NS	NS	ng/L			4			4			8			4			
1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	NS	NS	ng/L			4			4			8			4			
1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	NS	NS	ng/L			4			4			8			4			
4, 8-dioxa-3H-perfluorononanoic acid (ADONA)	NS	NS	ng/L			4			4			8			4			
9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	NS	NS	ng/L			4			4			8			4			
Hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	NS	NS	ng/L			4			4			8			4			
N-ethyl Perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	NS	ng/L			1			1			1			1			
N-methyl Perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	NS	ng/L			1			1			1			1			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	NS	ng/L			4			4			8			4			
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	NS	NS	ng/L			4			4			8			4			
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	NS	ng/L			4			4			8			4			
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	NS	ng/L			4			4			8			4			
Perfluorobutanesulfonic acid (PFBS)	NS	NS	ng/L			4			4			8			4			
Perfluorooctanoic Acid (PFOA)	10	NA	ng/L			4			4			8			4			
Perfluorooctanesulfaonic Acid (PFOS)	10	NA	ng/L	0.6	ND - 2.4	4	0.5	ND - 2.1	4	Not Detected		8	Not Detected		4	Not Detected		4
Perfluorobutanoic acid (PFBA)	NS	NS	ng/L	1.7	ND - 2.5	4	2.2	ND - 3.1	4	0.3	ND - 2.7	8	2	ND - 3.2	4	2.2	ND - 5.2	4
Perfluorodecanoic acid (PFDA)	NS	NS	ng/L	Not Detected		4	Not Detected		4	Not Detected		8	Not Detected		4	Not Detected		4
Perfluorododecanoic acid (PHD _o A)	NS	NS	ng/L			4			4			8			4			
Perfluoroheptanesulfonic acid (PFHpS)	NS	NS	ng/L			4			4			8			4			
Perfluoroheptanoic acid (PFHpA)	NS	NS	ng/L			4			4			8			4			
Perfluorohexanesulfonic acid (PFHxS)	NS	NS	ng/L			4			4			8			4			
Perfluorohexanoic acid (PFHxA)	NS	NS	ng/L			4			4			8			4			
Perfluorononanoic acid (PFNA)	NS	NS	ng/L			4			4			8			4			
Perfluoropentanesulfonic acid (PFPeS)	NS	NS	ng/L			4			4			8			4			
Perfluoropentanoic acid (PFPeA)	NS	NS	ng/L			4			4			8			4			
Perfluorotetradecanoic acid (PFTA)	NS	NS	ng/L			1			1			1			1			
Perfluorotridecanoic acid (PFT _r DA)	NS	NS	ng/L			1			1			1			1			
Perfluoroundecanoic acid (PFUnA)	NS	NS	ng/L			4			4			8			4			
UCMR5 - Metal / Pharmaceutical:																		
Lithium	NS	NS	µg/L	Not Detected		1	Not Detected		1	12.1	12.1	1	Not Detected		1	Not Detected		1

Water Quality Monitoring Parameters				MCWA - SWTP			MCWA - WWTP			MCWA - CWTP			Rochester			ECWA - VWTP		
	Regulatory Limit	EPA / NYS MCLG	Units	Source - Lake Ontario			Source - Lake Ontario			Source - Groundwater Well(s)			Source - Hemlock Lake			Source - Lake Erie		
				Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023	Average	Range	Samples in 2023

Key Terms, Abbreviations, & Notes:

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.

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

AL¹ = Action Level - The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. If >10% of results are greater than 15 µg/l for lead or 1300 µg/L for copper, remediative steps are required. In MCWA's combined retail area, 90% of the samples were less than 7.2 µg/L for lead and 259 µg/L for copper.

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

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

NA = Not Applicable **NR** = Not Required / Not Reported **NS** = No Standard **NT** = Not Tested

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

NTU = Nephelometric turbidity Unit. A measure of the clarity of water.

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

pg/L = Picogram (1/1,000,000,000,000 of a gram) per Liter = ppq = parts per quadrillion

pCi/L = PicoCuries per Liter

MCWA - SWTP = Monroe County Water Authority - Shoremont Water Treatment Plant.

MCWA - WWTP = Monroe County Water Authority - Webster Water Treatment Plant.

MCWA - CWTP = Monroe County Water Authority - Corfu Water Treatment Plant.

Rochester = City of Rochester - Hemlock Water Filtration Plant. MCWA purchases water from Rochester's water system.

ECWA - VWTP = Erie County Water Authority - Van de Water and Sturgeon Point Water Treatment Plants. MCWA purchases water from the ECWA's water supply system.

MF/L = Million Fibers per Liter. A measure of the presence of asbestos fibers longer than 10 micrometers.

(year) = Most recent testing. Monitoring frequency requirements vary depending on compound.

UCMR5 = Unregulated Contaminant Monitoring Rule 5 - EPA required monitoring of up to 30 unregulated water quality parameters to establish baseline occurrence data. EPA combines this data with research to establish future regulations.

µmhos/cm = Microohms per Centimeter

Cont = Continuously monitored via online measurements.

TT² = 95% of measurements within a given month must be less than 0.3 NTUs.

TT³ = Average of monthly distribution system turbidity samples must be less than 5.0 NTUs.

4⁴ = 95% of monthly distribution system samples must have a measurable chlorine residual.

TT⁵ = No more than 5% of monthly samples can be positive.

Note: Total Hardness is also expressed in grains per gallon. The total hardness of the Ontario, Hemlock, & Erie lake supplies are 7.2, 7.2, 5.3, and 6.6 grains per gallon. The total hardness of the Corfu aquifer supply is 10.2 grains per gallon.