

Monroe County Water Authority 475 Norris Drive Rochester, New York 14610

Quality Report Annual Water 2020

MCWA RICHMOND GENESEE MCWA MCWA

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Monroe County Water Authority 2020 Annual Water Quality 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 Water Quality Summary Table

2020 Calendar Year Results

				2020 C	alendar rear i	tesuits -			
	Supply -			MCWA Production Water:		MCWA Purchased Water:			
				SWTP & WWTP -	CWTP -	Rochester -	ECWA -	Likely Source:	Water Quality Violation:
Detected Substances:	Source -			Lake Ontario	Well Field	Hemlock Lake	Lake Erie		
	(Source Type)			(Surface Water)	(Groundwater)	(Surface Water)	(Surface Water)		
	Units	MCLG	MCL		Range of det	ected 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 elow 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	тт	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 Pararmeters - No more that	an 5% of n	nonthly sar	mples can b	e positive. The highest n	nonthly % positive and n	umber of samples is listed	d.		
Total Coliform Bacteria	NA	0	тт	0.39% - November 2 samples	2.86% - March 1 sample	0.39% - November 2 samples	2.86% - March 1 sample	Naturally occurring	No
Source Water Microbial Pathogens - disinfection or by disinfection alone.	The highe	est positive	month and	number of samples is lis	sted. In our treatment p	rocesses, Cryptosporidiun	n is removed / inactivate	d through a combination of	filtration and
Cryptosporidium	Cysts/L	0	тт	WWTP - 1 (March) 1 Sample	NR	ND	ND (2017)	Naturally occurring	No
Disinfectant and Disinfectant By-pro DBPs (Total Trihalomethanes and Halo	ducts (DB pacetic Ac	Ps) - Chlor ids) the an	ine has a M nual system	RDL (Maximum Residual average, range for all lo	Disinfectant Level) and ocations, and highest loca	MRDLG (MRDL Goal) rath ational running annual av	er than an MCL and MCI erage for all locations ar	LG (Averages and ranges are e listed.	e listed). For the
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 m	ust be les	s than the	Action Leve	l (AL). The 90th Percenti	ile, the number of sampl	es exceeding the AL, and	the range of results are I	isted. (2018 Monitoring per	riod)
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 ning more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium d

minant 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 nce data that the EPA combines with toxicological research to make decisions about future drinking water regulations. or the fourth list from 2018 - 2020 For r ess go to https://drinktap.org/Water-Info/Whats-in-My-Water/Unregulated-Contaminant-Monitoring-Rule-UCMR

Alcohols, Indicators, Metals, Pesticides, SVOCs,	Entry Points:			Lake Ontario Supplies -		Purchased Water Supplies -		Groundwater Supply -	Water Quality Violation:
and Cyantoxins:	Units	MCL		SWTP	WWTP	Rochester	ECWA	CWTP	Yes or No
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 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 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

NS = No standard

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

 $\mu g/L = microgram (1/1,000,000 \text{ of a gram})$ 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 measure of water clarity.

CWTP = Corfu Water Treatement Plant.

SWTP = Shoremnt Water Treatement 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

-	•		-	1
nzene	Toluene	Carbaryl	Ethoprop	
omobenzene	1,2,3-Trichlorobenzene	Dalapon	Oxyfluoren	
omochloromethane	1,2,4-Trichlorobenzene	Di(2-Ethylhexyl) Adipate	Profenofos	L
omomethane	1,1,1-Trichloroethane	Di(2-Ethylhexyl) phthalate (DEHP)	Tebuconazole	L
Butylbenzene	1,1,2-Trichloroethane	Dicamba	Permethrin, cis & trans	L
-Butylbenzene	Trichloroethene	Dieldrin	Tribufos	L
t-Butylbenzene	Trichlorofluoromethane	Dinoseb	Butylated hydroxyanisole	L
bon Tetrachloride	1,2,3-Trichloropropane	Diquat	o-Toluidene	L
orobenzene	1,2,4-Trimethylbenzene	Endothall	Quinoline	L
oroethane	1,3,5-Trimethylbenzene	Glyphosate	1-Butanol	L
oromethane	Vinyl Chloride	Hexachlorobenzene	2-Methoxyethanol	L
Thlorotoluene	o-Xylene	Hexachlorocyclopentadiene	2-Propen-1-ol	L
Thlorotoluene	m, p-Xylene	3-Hydroxycarbofuran	Monobromoacetic acid	L
promomethane	Total Xylene	Methomyl	Monochloroacetic acid	L
-Dichlorobenzene	Alachlor	Metolachlor	Tribromoacetic acid	L
-Dichlorobenzene	Aldicarb	Metribuzin	1, 4-Dioxane	L
-Dichlorobenzene	Aldicarb sulfoxide	Oxamyl (vydate)	N-ethyl Perflurooctanesulfonamidoacetic acid	L
hlorodifluoromethane	Aldicarb sulfone	Perchlorate	N-methyl Perflurooctanesulfonamidoacetic acid	L
Dichloroethane	Atrazine	Picloram	Perfluorobutanesulfonic acid	L
-Dichloroethane	Carbofuran	Propachlor	Perfluorodecanoic acid	L
-Dichloroethene	Chlordane	Simazine	Perfluorododecanoic acid	L
-1,2-Dichloroethene	Dibromochloropropane	2, 3, 7, 8-TCDD (Dioxin)	Perfluoroheptanoic acid	L
ns-1,2-Dichloroethene	2, 4-D	Antimony	Perfluorohexanoic acid	L
-Dichloropropane	Endrin	Beryllium	Perfluorononoic acid	L
-Dichloropropane	Ethylene Dibromide	Chromium	Perfluorotetradecanoic acid	L
-Dichloropropane	Heptachlor	Cyanide	Perfluorotridecanoic acid	L
-Dichloropropene	Heptachlor Epoxide	Mercury	Perfluoroundecanoic acid	L
-Dichloropropene(cis)	Lindane (gamma-BHC)	Nickel	Total Microcystin	L
-Dichloropropene(trans)	Methoxychlor	Nitrite	Microcystin-LA	L
iylbenzene	p,p' DDD	Selenium	Microcystin-LF	L
xachlorobutadiene	p,p' DDE	Silver	Microcystin-LR	L
sopropyltoluene	p,p' DDT	Thallium	Microcystin-LY	L
thyl Tert-butyl ether (MTBE)	PCB's Total	Zinc	Microcystin-RR	L
thylene Chloride (Dichloromethane)	Pentachlorophenol	Surfactants (Foaming Agents)	Microcystin-YR	L
Propylbenzene	Toxaphane	Giardia Lamblia	Nodularin	L
rrene	2, 4, 5-TP (Silvex)	Germanium	Anatoxin-A	ł
,1,2-Tetrachloroethane	Aldrin	alpha-Hexachlorocyclohexane	Cylindrospermopsin	l
,2,2-Tetrachloroethane	Benzo(a)pyrene	Chlorpyrfos		ł
rachloroethene	Butachlor	Dimethipin		L

For more information on MCWA's monitoring program call Customer Service at 585-442-7200.

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 20 billion gallons of drinking water every 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 or unwilling to make the investments necessary to maintain their water systems. That's not the case with the Monroe County Water Authority. In 2020 we invested \$20.82 million in infrastructure improvements. Our commitment to efficiency and cost control 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 Authority residential customer about \$27 a month for all the water they need.

The Monroe County Water Authority's 215 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 regulations. For more information check our website at www.MCWA.com.

Source and Treatment

Our primary water source is Lake Ontario which is treated at our Shoremont Plant in Greece and our Webster Plant in Webster. We also operate the Corfu Plant, a small well supply in the Village of Corfu, and purchase water from the City of Rochester and the Erie County Water Authority (ECWA). The Service Area Map in this report shows the typical service area for each of the treatment plants. The boundaries between the service areas change day to day as we manage the sources to optimize water delivery to our customers.

The New York State Health Department 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 Shoremont and ECWA are not very susceptible because of the size and quality of the Great Lakes. Hemlock and Canadice Lakes, used by the Hemlock Plant, are also not very susceptible because of their size and controlled

watersheds. The well water used by the Corfu Plant is more susceptible, but the confined nature of the aquifer provides protection against the few nearby potential contaminant sources. Because storm and waste water 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 Plant and the purchased water producers all use a similar treatment process: coagulation, filtration and disinfection. Coagulants are added to clump together suspended particles, enhancing their removal during filtration. Chlorine is used to disinfect the water and to provide the residual disinfectant that preserves the sanitary quality of the water as it travels from each plant to your home. Fluoride is also added to help prevent tooth decay. The treatment process at the Corfu Water Plant consists of filtration, softening and disinfection with chlorine.

These water treatment plants are in full compliance with all New York State and USEPA operational and monitoring requirements.

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



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Water Quality

Last year, as in years past, your tap water met all State drinking water health standards. 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 wells. As water travels over land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from animal or human activity. Contaminants 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 State and the USEPA established regulations that set limits on contaminant levels in water provided by public water systems. These limits are known as Maximum Contaminant Levels (MCLs). The regulations also specify testing, reporting, and public notification requirements for each contaminant. MCWA's monitoring program substantially exceeds USEPA and State Health Department requirements. Departments of health also review our operating and monitoring data for compliance and independently monitors our distribution system.

Some constituents we tested for were detected, but at levels well below the allowable MCL. It's 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 health risk. Additional information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (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. These people should seek advice from their health care providers about drinking water. EPA/CDC (U.S. Centers for Disease Control) guidelines on appropriate means to lessen the risk of infection by

Cryptosporidium

Cryptosporidium is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the direct influence of surface water. Cryptosporidium is removed / inactivated through a combination of filtration and disinfection or by disinfection. In 2020, the MCWA analyzed a total of 16 source water samples for Cryptosporidium taken from Lake Ontario at our Shoremont and Webster water treatment plants. Cryptosporidium was detected in one raw water sample collected in March at the Webster water treatment plant. In our treatment processes at this plant Cryptosporidium is removed / inactivated by a combination of filtration and disinfection.

MCWA encourages individuals with weakened immune systems to consult their health care provider regarding appropriate precautions to avoid infection. Ingestion of Cryptosporidium may cause cryptosporidiosis, an intestinal illness, and may spread through means other than drinking water. Person to person transmission may also occur in day care centers or other settings where handwashing practices are poor. For more information on cryptosporidiosis, please contact your local health department.

Lead in Drinking Water

If present, elevated levels of 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. Although our testing indicates this is not a problem for our customers, it is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's 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.

MCWA STATISTICS

WATER WITHDRAWN FROM LAKE ONTARIO	53.6 Million Gallons Per Day
AVERAGE SYSTEM USE	57 Million Gallons Per Day
NON-BILLABLE WATER (MAINTENANCE, FLUSHING, FIREFIGHTING, LEAKS)	6.36 Million Gallons Per Day
ANNUAL COST FOR AVERAGE RESIDENTIAL CUSTOMER	\$327.31 Per Year
POPULATION SERVED	778,373 Wholesale and Retail
NUMBER OF ACCOUNTS	187,745
MILES OF WATER MAINS	3,385
NUMBER OF FIRE HYDRANTS	26,840

Cryptosporidium, Giardia, and other microbiological contaminants are available from the Safe Drinking Water Hotline (800) 426–4791 or the Monroe County Department of Public Health, 111 Westfall Road, Rochester, NY 14620, (585) 753-5057.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. 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/MyWater/LeadInDrinkingWater.aspx or from the USEPA's Safedrinking Water Hotline (800-426-4791) and website (www.epa.gov/safewater/lead)...

Fluoride

MCWA is one of the many New York water utilities providing drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the U.S. Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal level of 0.7 mg/L. To ensure optimal dental protection, the State Department of Health requires that we monitor fluoride levels on a daily basis. In 2020 the fluoride levels in your water were within 0.2 mg/L of the CDC's recommended optimal level 99.5% of the time. The highest monitoring result was 1.0 mg/L, below the 2.2 mg/L MCL for fluoride.

FOR MORE INFORMATION

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

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 distribution system to prevent the growth of bacteria. 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 filter can be used for this also.

Home Treatment Units

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

Conservation

Lake Ontario provides 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 move the water to your houses. 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 washers when garden hoses start to drip, and water your lawn in the early morning. After 10 a.m. the sun's heat draws water from the lawn through evaporation. When you water early, you can water less because more of the water is absorbed into the lawn. To find more water saving tips, visit us online at www.MCWA.com.

