

ANNUAL DRINKING WATER QUALITY REPORT for 2023

**Town of Murray
3840 Fancher Road
Holley, NY 14470**

**Murray North Districts #2, #3, #4, #5, #8, #11N, #13, #15N, #16
and Kendall District #6**

PWS #NY3622603 and #NY3630096

Murray South Districts #6, #7, #9, #10, #11S, #12 #15S

PWS #NY3630012

Murray District #1 PWS #NY361220

INTRODUCTION

To comply with State regulation, the Town of Murray, annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact Dirk Lammes, Water Superintendent at (585) 638-6570 ext. 4. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Town Board meetings. Meetings are the 3rd Monday of every month at 7pm. The schedule is posted and updated regularly on our website, townofmurray.org.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

SOURCE WATER ASSESSMENT (Albion)

The New York State Department of Health completed a Source Water Assessment Report for the Village of Albion Water System as a requirement of the Source Water Assessment Program (SWAP). The Executive Summary of the report states that the Great Lakes watershed is exceptionally large and too big for a detailed evaluation in the SWAP. General drinking water concerns for public water supplies which use these sources include: storm generated turbidity, waste water, toxic sediments, shipping related spills, and problems associated with exotic species (e.g., *Zebra* Mussels-intake clogging and taste and odor problems). The summary below is based on the analysis of the contaminant inventory compiled for the drainage area deemed most likely to impact the drinking water quality of the Village of Albion Water System.

The assessment found a moderate susceptibility to contamination for the source of supply of the Village of Albion Water System. The number of agricultural lands in the assessment area results in elevated potential for Disinfection By-Product precursors, and pesticide contamination. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality based on their density in the assessment area. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facilities include: mines/quarries.

SOURCE WATER ASSESSMENT PROGRAM (HOLLEY)

The NYSDOH has completed a source water assessment for our water system, based on available information. Possible and actual threats to our drinking water sources were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean the water delivered to consumers is or will become contaminated. See section, "Are There Contaminants in Our Drinking Water?" for a list of the contaminants that were detected. The source water assessments provide resource managers with additional information for protecting source waters into the future. Water suppliers and county and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning and education programs.

The source water assessment has rated these wells as having a medium-high susceptibility to herbicides/pesticides and inorganic chemicals, and a high susceptibility to microbials, organic chemicals and nitrates. These ratings are due primarily to the close proximity of our wastewater treatment plant to the wells, agricultural activities and three oil and gas wells within the assessment area. In addition, the wells draw from an unconfined aquifer of unknown hydraulic conductivity. While nitrates (and other inorganic contaminants) were detected in our water, it should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk. While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered to your home meets New York State's drinking water standards for microbial contamination.

FACTS AND FIGURES

Our water system serves approximately 2277 people through 944 service connections. The total number of gallons purchased for our water districts in 2023 was 57,601,000 gallons.

Murray North districts serve 1260 people and include districts 2, 3, 4, 5, 8, 11N, 13, 15N and 16. Kendall district 6 serves 84 people. Murray South districts serve 813 people and include districts 6, 7, 9, 10, 11S, 12 and 15S. Murray district 1 serves 120 people. Water is purchased for all districts in Murray North and South systems, and Kendall district 6 from the Village of Albion Water Treatment Plant and Monroe County Water Authority (MCWA). Water is purchased for Murray district 1 from the Village of Holley and Monroe County Water Authority. Please refer to tables included.

In 2023, water customers in the Town of Murray were charged \$10.00 for the first 2000 gallons, and a \$10.00 meter fee and \$6.00/1000 gallons after that for an average charge of \$681

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: coliform, turbidity, 19 inorganic compounds, (including nitrate, lead and copper), disinfection and disinfection by products, 61 volatile organic compounds, 57 synthetic organic compounds and radiological. Most of the compounds we analyzed for were not detected in your drinking water. The table presented depicts which compounds were detected in your drinking water. The state allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

Table of Detected Contaminants Village of Albion 2023

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max/Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination	
TURBIDITY								
Finished Water ¹ (at entry point)	NO	Continuous	0.020 - 0.163	NTU	N/A	TT-95% <0.3 NTU MCL = 1.0 NTU	Soil Runoff	
Distribution system (various locations)	NO	5 per week	0.037 - 0.520	NTU	N/A	5 NTU	Sediments in storage tanks and piping	
INORGANICS / SYNTHETIC ORGANICS								
Barium	NO	8/15/23	0.03	mg/L	2.0	MCL = 2.0 mg/L	Erosion of mineral deposits, discharge from metal refineries	
Chromium	NO	8/15/23	ND	mg/L	0.1	MCL = 0.1 mg/L	Erosions of natural deposits, discharge from steel & pulp mills	
Fluoride	NO	8/15/23	0.11	mg/L	N/A	N/A	Erosion of natural deposits, discharge into streams	
Nitrate	NO	3/7/23	0.41	mg/L	10	MCL = 10 mg/L	Runoff from fertilizer, septic tank leaching, erosion of natural deposits	
Copper	NO	8/12/23 to 8/17/23	0.036 ² (0.002 - 0.061)	mg/L	1.3	AL = 1.3	Corrosion of household plumbing, leaching of wood preservatives	
Lead	NO	8/12/23 to 8/17/23	4.0 ³ (ND - 6.2)	ug/L	0	AL = 15	Corrosion of household plumbing, erosion of natural deposits	
Chloride	NO	Monthly	30 (27 - 32)	mg/L	N/A	MCL = 250 mg/L	Erosion and runoff, naturally occurring, road salt	
Hardness (total)	NO	Monthly	125 (115 - 138)	mg/L	N/A	N/A	Dissolved minerals	
Radium 228	NO	6/16/22	0.97 (+ or - 0.36)	pCi/L	N/A	MCL = 5 pCi/L	Erosion of mineral deposits	
PFOA (Perfluoro octanoic acid)	NO	3/8/23	ND ⁵	ng/L	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products	
PFOS (Perfluoro octanesulfonic acid)	NO	3/8/23	ND ⁵	ng/L	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products	
1-4 Dioxane	NO	3/8/23	ND	ug/L	N/A	MCL = 1 ug/L	Industrial chemical	
DISINFECTION AND DISINFECTION BYPRODUCTS								
Chlorine Residual (at entry point)	NO	Daily	1.33 (0.85 - 1.91)	mg/L	N/A	MRDL = 4.0 mg/L	Disinfectant	
Chlorine Dioxide	NO	Daily	0.38 (0.01 - 0.67)	mg/L	N/A	MCL = 0.8 mg/L (800 ug/L)	Residual Chlorine Dioxide	
Chlorite	NO	Daily	0.53 ⁶ (0.22 - 1.15)	mg/L	0.8	MCL = 1.0 mg/L	Byproduct of drinking water disinfection	
Trihalomethanes	NO	Annually	36 ⁴	ug/L	N/A	MCL = 80 ug/L	Byproduct of drinking water disinfection	
Haloacetic Acids	NO	Annually	22 ⁴	ug/L	N/A	MCL = 60 ug/L	Byproduct of drinking water disinfection	
PURCHASE SYSTEM DISINFECTION BYPRODUCTS - samples collected annually - (same MCLs as above)								
	T/ Albion WD	T/ Barre WD	T/ Carlton WD	T/ Gaines WD	Kendall 6 WD	Murray North WD	Murray South WD	Ridgeway A WD
Chlorine Residual (average) mg/L	0.51	0.59	0.59	0.51	0.22	0.34	0.35	0.51
Trihalomethanes ug/L	40 ⁴	38 ⁴	34 ⁴	32 ⁴	26 ⁴	32 ⁴	46 ⁴	61 ⁴
Haloacetic Acids ug/L	25 ⁴	29 ⁴	8 ⁴	8 ⁴	7 ⁴	20 ⁴	28 ⁴	32 ⁴

Notes:

1 - Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement (0.1628 NTU) for the year occurred on 4/10/23. State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. The levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

2 - The level presented represents the 90th percentile of 30 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case 30 samples were collected at your water system and the 90th percentile value was 0.036 mg/L. The action level for copper was not exceeded at any of the sites tested.

3 - The level presented represents the 90th percentile of the 30 samples collected. In this case – 4.0 ug/L (0.004 mg/L). The action level for lead was exceeded at none of the 30 sites tested.

4 – The Village of Albion, and all of its purchase systems, are on reduced monitoring. Therefore, samples for TTHMs and HAA5s were collected only once in August of 2023. For the Village of Albion and the Town of Barre, the higher of two sample sites is reported.

5 – PFOA (perfluorooctanoic acid) and PFOS (perfluorooctanesulfonic acid), collectively (PFAS), caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. The United States Environmental Protection Agency considers PFAS as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFAS in animals.

6 – Chlorite ion leaving the water plant did exceed the MCL of 1.0 mg/L on 4/7/2023 due to very difficult raw water conditions. Subsequent testing of several samples in the distribution system all showed that the municipal water was well below the MCL

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/L): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/L): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Nanograms per liter (ng/L): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that is longer than 10 micrometers.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the Orleans County Health Department at (585)589-3252.

Table of Detected Contaminants Village of Holley 2023

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure -ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
-------------	------------------	----------------	----------------------------------	--------------------	------	----------------------------------	--------------------------------

INORGANIC CONTAMINANTS

Chlorine	No	2023	1.1 (1.3 - 0.2)	mg/L	N/A	4	Added to drinking water to destroy pathogenic organisms and protect water supply from bacterial contamination
Lead Ω	No	07/2023	0	mg/L	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper Φ	No	07/2023	.364	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Nitrate	No	2023	4.06	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Barium	No	2017	1.29 (Glidden well)	mg/L	2	2	Erosion of natural deposits.

DISINFECTION BY PRODUCTS

Trihalomethanes ψ (TTHMs) Village of Holley	No	2023 Annually	33	ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms.
Haloacetic Acids ψ (HAAs) Village of Holley	No	2023 Annually	12	ug/L	N/A	60	By-product of drinking water chlorination
Trihalomethanes ψ (TTHMs) Town of Murray #1	NO	2023 Annually	37	Ug/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms.
Haloacetic Acids ψ (HAAs) Town of Murray #1	NO	2023 Annually	10	Ug/L	NA	60	By-product of drinking water chlorination

RADIOACTIVE CONTAMINANTS

Gross beta particle and photon activity	No			pCi/L		50 β	Decay of natural deposits and manmade emissions.
Gross alpha activity	No	8/2016	<0	pCi/L	0	15	Erosion of natural deposits.
Radium 226				pCi/L			Erosion of natural deposits.
Radium 228	No	8/2016	<0	pCi/L		5	Erosion of natural deposits.

Notes:

Ω – The level presented represents the 90th percentile of the 10 sites tested. The 90th percentile is equal to or greater than 90% of the lead values detected at your water system. The amount of lead at most of the sites tested was very low, and none of the samples exceeded the action level.

Φ – The level presented represents the 90th percentile of the 10 sites tested. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. The amount of copper tested was low and none exceeded the action level.

ψ – TTHM's and HAA's were measured at the stage 2 site (Valley View Circle) which was selected based on testing done in 2007 and 2008. The village is required to collect samples quarterly at this site for at least one year.

β – The state considers (50 pCi/l), to be the level of concern for beta particles.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): 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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Level 1 Assessment: A Level 1 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

Level 2 Assessment: A Level 2 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion - ppq).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

MCWA Water Quality Summary Table 2023 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)			Lake Ontario (Surface Water)	Well Field (Groundwater)	Hemlock Lake (Surface Water)	Lake Erie (Surface Water)		
	Units	MCLG	Regulatory Limit	Range of detected values:					
Barium	mg/L	2	2	0.018 - 0.021	0.09 - 0.1	0.014	0.02	Erosion of natural deposits	No
Chloride	mg/L	NA	250	23 - 29	49 - 84	35 - 39	20 - 22	Naturally occurring	No
Chromium	µg/L	100	100	ND	ND - 2.6	ND	ND	Erosion of natural deposits	No
Fluoride	mg/L	NA	2.2	0.2 - 0.98	0.13 - 0.15	0.08 - 0.77	0.2 - 0.73	Naturally occurring & additive for dental health	No
Manganese	µg/L	NA	300	ND	6.1 - 21	ND	ND	Naturally occurring	No
Nitrate	mg/L	10	10	ND - 0.5	ND	ND	0.28	Erosion of natural deposits	No
Perfluorooctanesulfonic acid (PFOS)	ng/L	NS	10	ND - 2.5	ND	ND	ND	Environmental releases from textile sources	No
Perfluorobutanoic acid (PFBA)	ng/L	NS	10	ND - 3.1	ND - 2.7	ND - 3.2	ND - 5.2	Environmental releases from textile sources	No
Selenium	µg/L	50	50	ND - 3.6	ND - 7.1	ND	ND	Erosion of natural deposits	No
Sodium	mg/L	NA	NS	14 - 17	81 - 94 *	19 - 21 *	12 - 14	Naturally occurring	No
Sulfate	mg/L	NA	250	24 - 27	46 - 59	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 (0.01 - 0.09) 100% < 0.3 NTU	NR	0.05 (0.03 - 0.14) 100% < 0.3 NTU	0.08 (0.03 - 0.19) 100% < 0.3 NTU	Soil Runoff	No
Turbidity - Distribution	NTU	NA	5	2.44 - 10/06/2023	2.36 - 10/24/2023	2.44 - 10/06/2023	2.36 - 10/24/2023	Soil Runoff	No
Microbial Parameters - For total coliform bacteria, a Treatment Technique violation occurs when more than 5% of monthly samples are positive. The highest monthly % positive and number of positive samples is listed. For E. coli bacteria, a MCL violation occurs when a total coliform positive sample is positive for E. coli and a repeat total coliform sample is positive or when a total coliform positive sample is negative for E. coli but a repeat total coliform sample is positive and the sample is also positive for E. coli. The number of positive E. coli samples is listed.									
Total Coliform Bacteria	NA	0	TT	0.3% - September 1 sample	0% None Detected.	0.3% - September 1 sample	0% None Detected.	Naturally present in the environment	No
Escherichia coli (E. coli) Bacteria	NA	0	1	1 sample - 10/31/23	ND	1 sample - 10/31/23	ND	Human and animal fecal waste	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 (0.83 - 1.33) 0.82 (0.54 - 1.05)	1.14 (0.62 - 1.65)	0.9 (0.71 - 1.37)	1.41 (0.62 - 1.86)	Additive for control of microbes	No
Chlorine Residual - Distribution	mg/L	NA	MRDL = 4	0.6 (ND - 2.03)	0.7 (ND - 1.7)	0.6 (ND - 2.03)	0.7 (ND - 1.7)	Additive for control of microbes	No
Total Trihalomethanes (TTHMs)	µg/L	NA	80	39 (2 - 79) Max. LRAA = 57	50 (24 - 92) Max. LRAA = 57	39 (2 - 79) Max. LRAA = 57	50 (24 - 92) Max. LRAA = 57	Byproduct of water chlorination	No
Haloacetic Acids (HAAs)	µg/L	NA	60	11.5 (ND - 35) Max. LRAA = 19.3	9.6 (ND - 24) Max. LRAA = 16.9	11.5 (ND - 35) Max. LRAA = 19.3	9.6 (ND - 24) Max. LRAA = 16.9	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. (2023 monitoring period)									
Copper - Customer Tap Samples	mg/L	1.3	AL = 1.3	0.259 (None) 0.0023 - 0.68	0.142 (None) 0.004 - 0.29	0.259 (None) 0.0023 - 0.68	0.142 (None) 0.004 - 0.29	Corrosion of household plumbing	No
Lead - Customer Tap Samples	µg/L	0	AL = 15	7.2 (Five) ND - 53	0.63 (None) ND - 2.8	7.2 (Five) ND - 53	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 (UCMR5) - 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. UCMR5 was published in 2021 and requires public water systems to participate in monitoring between 2023 - 2025 using analytical methods developed by the EPA and consensus organizations. MCWA began UCMR5 monitoring in 2023. UCMR5 detected substances are listed. The complete list of UCMR5 substances may be found in the AWQR supplement.									
Metals:	Entry Points:		Lake Ontario Supplies -		Purchased Water Supplies -		Groundwater Supply -	Water Quality Violation: Yes or No	
	Units	Regulatory Limit	SWTP	WWTP	Rochester	ECWA	CWTP		
Lithium	µg/L	NA	ND	ND	ND	NR	12.1	NA	
Per & Polyfluorinated Alkyl Acids (PFAS):									
[29 PFAS Substances]	ng/L	NA	ND	ND	ND	NR	ND	NA	

For more information on the MCWA's water quality monitoring program call Customer Service at 585-442-7200 or visit our website at: 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	Endothall	Nonafluoro-3,6-dioxiheptanoic acid (NFDHA)
Bromobenzene	1,2,3-Trichloropropane	Glyphosate	Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)
Bromochloromethane	1,2,4-Trimethylbenzene	Hexachlorobenzene	Perfluoro-3-methoxypropanoic acid (PFMPA)
Bromomethane	1,3,5-Trimethylbenzene	Hexachlorocyclopentadiene	Perfluoro-4-methoxybutanoic acid (PFMBA)
n-Butylbenzene	Vinyl Chloride	3-Hydroxycarbofuran	Perfluorobutanesulfonic acid (PFBS)
sec-Butylbenzene	o-Xylene	3,5-Dichlorobenzoic Acid	Perfluorooctanoic Acid (PFOA)
tert-Butylbenzene	m, p-Xylene	Methomyl	Perfluorodecanoic acid (PFDA)
Carbon Tetrachloride	Total Xylene	Metolachlor	Perfluorododecanoic acid (PHDoA)
Chlorobenzene	Acifluorfen	Metribuzin	Perfluoroheptanesulfonic acid (PFHpS)
Chloroethane	Alachlor	Oxamyl (vydate)	Perfluoroheptanoic acid (PFHpA)
Chloromethane	Aldicarb	Paraquat	Perfluorohexanesulfonic acid (PFHxS)
2-Chlorotoluene	Aldicarb sulfoxide	Perchlorate	Perfluorohexanoic acid (PFHxA)
4-Chlorotoluene	Aldicarb sulfone	Picloram	Perfluorononanoic acid (PFNA)
Dibromomethane	Atrazine	Propachlor	Perfluoropentanesulfonic acid (PFPeS)
1,2-Dichlorobenzene	Baygon	Simazine	Perfluoropentanoic acid (PFPeA)
1,3-Dichlorobenzene	Bentazon	2, 3, 7, 8-TCDD (Dioxin)	Perfluorotetradecanoic acid (PFTA)
1,4-Dichlorobenzene	Carbofuran	Antimony	Perfluorotridecanoic acid (PFTA)
Dichlorodifluoromethane	Chlordane	Beryllium	Perfluoroundecanoic acid (PFUnA)
1,1 Dichloroethane	Dibromochloropropane	Cyanide	
1,2-Dichloroethane	2, 4-D	Mercury	
1,1-Dichloroethene	Endrin	Nickel	
cis-1,2-Dichloroethene	Ethylene Dibromide	Nitrite	
trans-1,2-Dichloroethene	Heptachlor	Silver	
1,2-Dichloropropane	Heptachlor Epoxide	Thallium	
1,3-Dichloropropane	Lindane (gamma-BHC)	Zinc	
2,2-Dichloropropane	Methoxychlor	Surfactants (Foaming Agents)	
1,1-Dichloropropene	p,p' DDD	Cryptosporidium	
1,3-Dichloropropene(cis)	p,p' DDE	Giardia Lamblia	
1,3-Dichloropropene(trans)	p,p' DDT	Monobromoacetic acid	
Ethylbenzene	PCB's Total	Monochloroacetic acid	
Hexachlorobutadiene	Pentachlorophenol	Tribromoacetic acid	
p-Isopropyltoluene	Toxaphane	Gross Alpha Particles	
Methyl Tert-butyl ether (MTBE)	2, 4, 5-TP (Silvex)	Radium 226	
Methylene Chloride (Dichloromethane)	Aldrin	Radium 228	
n-Propylbenzene	Benzo(a)pyrene	Combined Radium 226/228	
Styrene	Butachlor	Uranium	
1,1,1,2-Tetrachloroethane	Carbaryl	11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF30UdS)	
1,1,2,2-Tetrachloroethane	Dalapon	1H,1H, 2H, 2H-perfluorodecane sulfonic acid (8:2FTS)	
Tetrachloroethene	Di(2-Ethylhexyl) Adipate	1H,1H, 2H, 2H-perfluorohexane sulfonic acid (4:2FTS)	
Toluene	Di(2-Ethylhexyl) phthalate (DEHP)	1H,1H, 2H, 2H-perfluorooctane sulfonic acid (6:2FTS)	
1,2,3-Trichlorobenzene	Dicamba	4,8-dioxa-3H-perfluorononanoic acid (ADONA)	
1,2,4-Trichlorobenzene	Dieldrin	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF30NS)	
1,1,1-Trichloroethane	Dinoseb	Hexafluoropropylene oxide dimer acid (HFPO-DA)(GenX)	
1,1,2-Trichloroethane	1, 4-Dioxane	N-ethyl Perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	
Trichloroethene	Diquat	N-methyl Perfluorooctanesulfonamidoacetic acid (NMtFOSAA)	

SCAN CODE FOR AWQR REPORT:



WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; these contaminants were found to be below the level allowed by the State.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants and young children. 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 Town of Murray is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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 from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2023, our system was in full compliance with applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease-causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as a person with cancer undergoing chemotherapy, persons who have undergone organ transplants, 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 provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- * Saving water saves energy and some of the costs associated with both of these necessities of life.
- * Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- * Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential firefighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- * Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- * Turn off the tap when brushing your teeth.
- * Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- * Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.

Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, and then check the meter after 15 minutes. If it moved, you have a leak.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. It is our commitment as New York State Licensed Water Treatment Plant Operators to provide you with the best water quality possible at your tap and we feel this report confirms that we have honored that commitment. A copy of this report will be available at the Town of Murray Office, and for those that have internet access: Townofmurray.org. If you have any questions, feel free to call:

Water Quality or report a leak –

Town of Murray 638-6570

Town of Murray (and Kendall 6) 638-6570 Ext. 4 (Dirk Lammes, Hwy. Supt.)