ANNUAL WATER QUALITY REPORT for 2024

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

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

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 2099 people through 945 service connections. The total number of gallons purchased for our water districts in 2024 was 75,144,000 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 815 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 2024, water customers in the Town of Murray were charged $12.50 as a minimum, and a $10.00 meter fee, and $6.25/1000 gallons after that for an average charge of $707

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 for Village of Albion 2024

Murray North and Murray South

CONTAMINANT	VIOLATION (YES OR NO)	DATE OF SAMPLE	LEVEL DETECTED (AVG/MAX/ RANGE)	UNITS	MCLG	REGULATORY LIMITS (MCL, TT OR AL)	LIKELY SOURCE OF CONTAMINATION
TURBIDITY							
FINISHED WATER [1] (At Entry Point)	NO	Continuous	0.0277 - 0.1498	NTU	N/A	TT-95%<0.3NTU MCL=1.0 NTU	Soil Runoff
DISTRIBUTION SYSTEM (Various Locations)	NO	5 per Week	0.044 - 0.866	NTU	N/A	5 NTU	Sediments in storage tanks and piping
INORGANICS							
BARIUM	NO	8/7/2024	0.026	mg/L	2.0	MCL=2.0 mg/L	Erosion of mineral deposits, discharge from metal refineries
CHROMIUM	NO	8/7/2024	ND	mg/L	0.1	MCL=0.1 mg/L	Erosion of natural deposits, discharge from steel & pulp mills
FLUORIDE	NO	8/7/2024	0.72	mg/L	N/A	N/A	Erosion of mineral deposits
NITRATE	NO	5/8/2024	0.32	mg/L	10	MCL=10 mg/L	Runoff from fertilizer, septic tank leaching, erosion of natural deposits
COPPER	NO	8/12/2023 - 8/17/2023	.036 [2] (0.02 - 0.061)	mg/L	1.3	AL=1.3	Corrosion of household plumbing, leaching of wood preservatives
LEAD	NO	8/12/2023 - 8/17/2023	4.0 [3] (ND - 6.2)	ug/L	0	AL=15	Corrosion of household plumbing, erosion of natural deposits
CHLORIDE	NO	Monthly	36 (32 - 42)	mg/L	N/A	MCL=250 mg/L	Erosion and runoff, naturally occuring, road salt
RADIUM 228	NO	6/16/2022	0.97 (+/- 0.36)	pCi/L	N/A	MCL=5 pCi/L	Erosion of mineral deposits
HARDNESS (Total)	NO	Monthly	127 (118 - 146)	mg/L	N/A	N/A	Dissolved minerals
PFHpA (Perfluoroheptanoic Acid)	NO	3/21/2024	0.93 [5]	ng/L	N/A	MCL=10 ng/L	Industrial chemicals found in many consumer products
PFHxA (Perfluorohexanoic Acid)	NO	3/21/2024	1.3 [5]	ng/L	N/A	MCL=10 ng/L	Industrial chemicals found in many consumer products
PFOA (Perfluorooctanoic Acid)	NO	3/21/2024	1.5 [5]	ng/L	N/A	MCL=10 ng/L	Industrial chemicals found in many consumer products
PFOS (Perfluorooctanesulfonic Acid)	NO	3/21/2024	1.2 [5]	ng/L	N/A	MCL=10 ng/L	Industrial chemicals found in many consumer products
1-4 DIOXANE	NO	3/21/2024	ND	ng/L	N/A	MCL=1 ug/L	Industrial chemical
DISINFECTION AND DISINFECTION BYPRODUCTS							
CHLORINE RESIDUAL (At Entry Point)	NO	Daily	1.39 (0.44 - 2.29)	mg/L	N/A	MRDL=4.0 mg/L	Disinfectant
CHLORINE DIOXIDE	NO	Daily	0.41 (0.01 - 0.75)	mg/L	N/A	MCL=0.8 mg/L	Residual chlorine dioxide
CHLORITE	NO	Daily	0.48 (0.28 - 0.98)	mg/L	0.8	MCL=1.0 mg/L	Byproduct of drinking water disinfection
TRIHALOMETHANES	NO	Annually	20 [4]	ug/L	N/A	MCL=80 ug/L	Byproduct of drinking water disinfection
HALOACETIC ACIDS	NO	Annually	18 [4]	ug/L	N/A	MCL=60 ug/L	Byproduct of drinking water disinfection

PURCHASE SYSTEM DISINFECTION BYPRODUCTS - Samples Collected Quarterly - 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)	0.44	0.49	0.57	0.43	0.14	0.29	0.28	0.55
TRIHALOMETHANES [4]	32	31	15	25	35	25	37	39
HALOACETIC ACIDS [4]	21	25	11	14	3	5	14	17

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 0.1498 NTU for the year occurred on 1/27/2024. 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, which is, 4.5 ug/L (0.0045 mg/L). The action level for lead was not exceeded at any 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 2024. 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.

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 are 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) 589-3278.

Table of Detected Contaminants Village of Holley 2024 Murray District # 1							
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	2024	**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	07/2024	.0013	mg/L	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Copper Φ	No	07/2024	.146	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Nitrate	No	04/2024	3.80	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	8/2024 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	8/2024 Annually	6	ug/L	N/A	60	By-product of drinking water chlorination
Trihalomethanes ψ (TTHMs) Town of Murray #1	NO	8/2024 Annually	26	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	8/2024 Annually	6	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.
UNREGULATED PERFLUOROALKYL SUBSTANCES	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
Perfluorobutanoic acid (PFBA)	No	9/2024	2.58	ng/L		10	Industrial chemical found in many consumer products

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.

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.

Monroe County Water Authority

2024 Water Quality Monitoring Program Summary

SCAN CODE FOR AWQR REPORT:

Water Quality Monitoring Parameters				MCWA - SWTP Source - Lake Ontario			MCWA - WWTP Source - Lake Ontario			MCWA - CWTP Source - Groundwater Well(s)			Rochester Source - Hemlock Lake			ECWA - VWTP Source - Lake Erie		
	Regulatory Limit	EPA / NYS MCLG	Units	Average	Range	Samples in 2024	Average	Range	Samples in 2024	Average	Range	Samples in 2024	Average	Range	Samples in 2024	Average	Range	Samples in 2024
Inorganics, Metals, & Physical Parameters:																		
Alkalinity	NS	NA	mg/L	91	90 - 91	4	90	88 - 92	4	250	240 - 260	4	75	71 - 87	4	93	87 - 97	4
Aluminum	NS	NS	µg/L	52	26 - 82	4	61	26 - 88	4	7	ND - 28	4	ND		4	171	52 - 300	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
Asbestos (Distribution System)	7	7	MF/L	ND		1 (2016)	ND		1 (2016)	ND		1 (2016)	ND		1 (2023)	ND		30 (2023)
Barium	2	2	mg/L	0.022	0.02 - 0.024	4	0.02	0.019 - 0.022	4	0.09	0.08 - 0.1	4	0.015	0.015	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	35	33 - 38	4	36	34 - 39	4	45	42 - 49	4	29	25 - 33	4	33	31 - 35	4
Chloride	250	NA	mg/L	27	26 - 28	4	29	26 - 31	4	62	49 - 76	4	38	32 - 41	4	22	20 - 25	4
Chromium	100	100	µg/L	0.3	ND - 1.1	4	ND		4	0.3	ND - 1.2	4	ND		2	0.6	ND - 1.1	2
Color	15	NA	Color Units	1	ND - 2	4	ND		4	0.8	ND - 3	4	0.5	ND - 2	4	0.5	ND - 2	4
Conductivity	NS	NS	µmhos/cm	302	290 - 330	52	313	300 - 340	46	740	481 - 865	53	294	280 - 313	54	295	286 - 303	51
Copper (Distribution System Samples)	NS	NS	µg/L	ND		4	0.6	ND - 2.3	4	14	11 - 17	4	9.3	ND - 14	4	0.5	ND - 2	4
Copper (Customer Tap Samples)	AL [1] = 1300	1300	µg/L	110	4.4 - 880	250	110	4.4 - 880	250	32	ND - 130	17	110	4.4 - 880	250	32	ND - 130	17
Cyanide	200	200	µg/L	ND		4	ND		4	ND		4	ND		4	ND		4
Fluoride	2.2	NA	mg/L	0.69	0.41 - 0.93	2,180	0.68	0.3 - 0.95	2,038	0.2	0.14 - 0.51	53	0.69	0.4 - 0.8	1,077	0.66	0.58 - 0.76	51
Iron	300	NA	µg/L	ND		4	ND		4	ND		4	22	22	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	4.4	ND - 110	250	4.4	ND - 110	250	0.11	ND - 0.75	17	4.4	ND - 110	250	0.11	ND - 0.75	17
Magnesium	NS	NS	mg/L	8.9	8.6 - 9.5	4	8.9	8.6 - 9.5	4	17	16 - 18	4	6.9	6.4 - 7.9	4	8.3	7.6 - 8.9	4
Manganese	300	NA	µg/L	ND		4	ND		4	5.8	5.2 - 6.3	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	0.17 - 0.42	4	0.29	0.19 - 0.47	4	0.05	ND - 0.18	4	0.16	0.16	1	0.19	0.19	1
Nitrite	1	1	mg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Potassium	NS	NS	mg/L	1.5	1.4 - 1.6	4	1.5	1.4 - 1.6	4	0.3	ND - 1	1	1.3	1.3	1	1.3	1.3	1
Selenium	50	50	µg/L	ND		4	0.9	ND - 3.6	4	ND		4	ND		1	ND		1
Silica	NS	NS	mg/L	0.5	ND - 0.71	4	0.57	ND - 0.85	4	8	7.0 - 8.8	4	0.9	0.36 - 1.2	4	0.4	0.26 - 0.58	4
Silver	100	NA	µg/L	ND		4	ND		4	ND		4	ND		1	ND		1
Sodium	NS	NS	mg/L	16	15 - 17	4	18	16 - 19	4	94	92 - 97	4	21	20 - 21	4	13	12 - 15	4
Sulfate	250	NA	mg/L	26	25 - 26	4	26	25 - 27	4	48	46 - 51	4	14	11 - 20	4	19	19	4
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
pH	NS	NS	pH units	7.43	7.12 - 7.61	366	7.44	7.11 - 7.79	345	7.37	7.21 - 7.99	169	7.77	7.03 - 8.09	366	7.95	7.3 - 8.13	1,096
Total Dissolved Solids	NS	NS	mg/L	178	170 - 180	4	180	170 - 190	4	435	410 - 470	4	168	160 - 180	4	173	170 - 180	4
Total Hardness	NS	NS	mg/L	123	120 - 130	4	125	120 - 140	4	183	170 - 200	4	101	90 - 120	4	118	110 - 120	4
Total Organic Carbon	TT	NS	mg/L	1.7	1.5 - 1.8	4	1.8	1.7 - 1.9	4	0.9	0.82 - 1	4	2.2	1.9 - 2.4	4	1.9	1.8 - 2	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	0.02 - 0.08	2,196	0.04	0.01 - 0.09	2,044	0.55	0.04 - 3.41	106	0.06	0.01 - 0.17	2,184	0.07	0.04 - 0.26	1,096
Turbidity - Distribution System	TT [3]	NA	NTUs	0.13	0.03 - 2.62	4,087	0.13	0.03 - 2.62	4,087	0.16	0.05 - 2.05	397	0.13	0.03 - 2.62	4,087	0.16	0.05 - 2.05	397
Chlorine Residual - Entry Point	4	NA	mg/L	1.15	0.87 - 1.42	2,196	0.87	0.36 - 1.25	2,043	1.1	0.44 - 1.6	176	0.96	0.56 - 1.23	2,189	1.6	1.3 - 1.85	1,096
Chlorine Residual - Retail Distribution System	4 [4]	NA	mg/L	0.61	ND - 1.96	4,088	0.61	ND - 1.96	4,088	0.72	ND - 1.65	397	0.61	ND - 1.96	4,088	0.72	ND - 1.65	397
Microbiological Parameters:																		
Coliform - Retail Distribution System	TT [5]	0	NA	2 positive samples - 0.05%.		4,088	2 positive samples - 0.05%.		4,088	0 positive samples - 0%.		397	2 positive samples - 0.05%.		4,088	0 positive samples - 0%.		397
				December: 1 positive sample - 0.3%.			December: 1 positive sample - 0.3%.			None Detected.			December: 1 positive sample - 0.3%.			None Detetced.		
Escherichia coli - Bacteria (Retail Distribution System)	1	0	NA	0 positive samples.		4,088	0 positive samples.		4,088	0 positive samples.		397	0 positive samples.		4,088	0 positive samples.		397
				None Detected.			None Detected.			None Detected.			None Detected.			None Detetced.		
Cryptosporidium (Source water prior to treatment)	TT	0	OoCysts/L	ND		4	ND		4	NR		NR	NR		NR	NR		NR
				None Detected.			None Detected.			NR			NR			NR		
Giardia Lamblia (Source water prior to treatment)	TT	0	Cysts/L	0.013	ND - 0.05	4	ND		4	NR		NR	NR		NR	NR		NR
				February: 1 positive sample.			None detected.			NR			NR			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)

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.	**MCWA - SWTP** = Monroe County Water Authority - Shoremont Water Treatment Plant.
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.	**MCWA - WWTP** = Monroe County Water Authority - Webster Water Treatment Plant.
TT = Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.	**MCWA - CWTP** = Monroe County Water Authority - Corfu Water Treatment Plant.
AL [1] = 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 14.2 µg/L for lead and 210 µg/L for copper. For MCWA's customers in the towns of Pembroke and Darien and the village of Corfu, 90% of the samples were less than 0.54 µg/L for lead and 81 µg/L for copper.	**Rochester** = City of Rochester - Hemlock Water Filtration Plant. MCWA purchses water from Rochester's water system.
LRAA = Locational Running Annual Average - The annual average contaminant concentration at a monitoring site.	**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.
mg/L = Milligram (1/1,000 of a gram) per Liter = ppm = parts per million	**MF/L** = Million Fibers per Liter. A measure of the presence of asbestos fibers longer than 10 micrometers.
NA = Not Applicable **NR** = Not Required / Not Reported **NS** = No Standard **NT** = Not Tested	**(year)** = Most recent testing. Monitoring frequency requirements vary depending on compound.
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.	**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.
NTU = Nephelometric turbidity Unit. A measure of the clarity of water.	**µmhos/cm** = Microohms per Centimeter
µg/L = Microgram (1/1,000,000 of a gram) per Liter = ppb = parts per billion	**Cont** = Continuously monitored via online measurements.
ng/L = Nanogram (1/1,000,000,000 of a gram) per Liter = ppt = parts per trillion	**TT** [2] = 95% of measurements within a given month must be less than 0.3 NTUs.
pg/L = Picogram (1/1,000,000,000,000 of a gram) per Liter = ppq = parts per quadrillion	**TT** [3] = Average of monthly distribution system turbidity samples must be less than 5.0 NTUs.
pCi/L = PicoCuries per Liter	**4** [4] = 95% of monthly distribution system samples must have a measurable chlorine residual.
	TT [5] = 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, 7.3, 5.9, and 6.9 grains per gallon. The total hardness of the Corfu aquifer supply is 10.7 grains per gallon.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned though 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 homes 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 2024, 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 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).

A Lead Service Line (LSL) is defined as any portion of pipe that is made of lead which connects the water main to the building inlet. An LSL may be owned by the water system, owned by the property owner, or both. The inventory includes both potable and non-potable SLs within a system. In accordance with the federal Lead and Copper Rule Revisions (LCRR) our system has prepared a lead service line inventory and have made it publicly accessible by visiting: Lead Service Line Inventory

This information is also available to residents at the Town of Murray office building, 3840 Fancher Rd., or by calling the Town of Murray water dept. at 585-638-6570 ext.4

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.)