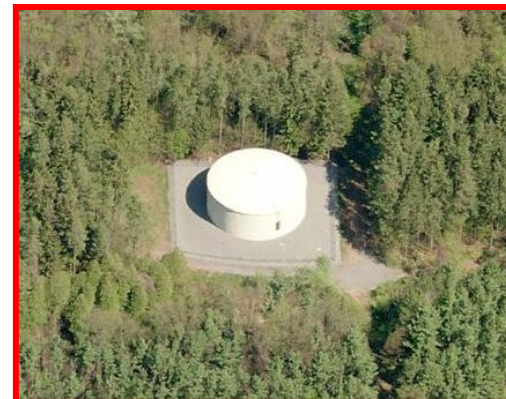


Annual Drinking Water Quality Report for 2021
Hamilton College Water District
 198 College Hill Road - Clinton, NY 13323
 (Public Water Supply ID# NY3202470)

Supplemental to MVWA Report –
 see MVWA Report for additional
 required reporting information



INTRODUCTION

To comply with State regulations, Hamilton College Water District (HCWD) will be annually issuing 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. The system is a purchase water system of the Mohawk Valley Water Authority (MVWA), meaning all water is purchased from the MVWA and distributed through our water mains to customers. Attached is the MVWA Annual Water Quality Report. Last year, your tap water met all State drinking water health standards. This report provides an overview of the water quality for the past year. Included are details about where your water comes from, what it contains, and how it compares to State standards. Additional information may be obtained at www.mvwa.us.

If you have any questions about this report or concerning your drinking water, please contact William Huggins, Director of Building Systems Management, 315-859-4177. We want you to be informed about your drinking water.

WHERE DOES OUR WATER COME FROM?

Our water system serves 2181 people through 173 service connections. These people are year-round residents, employees and staff or students. The HCWD purchases 100% of its water from the MVWA. (See the MVWA Report for additional information on where our water comes from.) If needed, sodium hypochlorite (chlorine) is added to the water to ensure continuous disinfection of the water supply. The water is pumped to a 1-million gallon storage tank. From here, the water flows by gravity to all buildings and residences within the water district.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In addition to the MVWA sample results (see attached MVWA Report), the HCWD Water System routinely tests your drinking water for coliform bacteria, disinfection residuals, lead and copper, and disinfection byproducts. The table presented below depicts which compounds were detected in your drinking water.

Table of Detected Contaminants (Hamilton College WD)

| Contaminant | Is System in Violation? | Date of Sample | Level Detected Average or Maximum (Range) | Unit Measurement | MCLG / MRDLG | Regulatory Limit (MCL, MRDL, TT or AL) | Sources in Drinking Water |
|--|-------------------------|-----------------|--|------------------|--------------|--|---|
| Inorganic Contaminants | | | | | | | |
| Copper | No | 9/24/21 | 0.024 ⁽¹⁾ (range = 0.0051 – 0.032) | mg/l | 1.3 | AL = 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits. |
| Lead | No | 9/24/21 | 5.4 ⁽²⁾ (range = ND-7.2) | ug/l | 0 | AL = 15 | Corrosion of household plumbing systems; Erosion of natural deposits. |
| Disinfectants | | | | | | | |
| Chlorine Residual | No | Daily / Monthly | 0.71 ⁽³⁾ (range = 0.31 – 0.94) | mg/l | N/A | MRDL = 4 ⁽⁴⁾ | Water additive used to control microbes. |
| Disinfection Byproducts | | | | | | | |
| Haloacetic Acids (HAA5 - mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid) | No | Quarterly | 16.75 ⁽⁵⁾ (range = 12 - 23) | ug/l | N/A | MCL = 60 | By-product of drinking water disinfection needed to kill harmful organisms. |
| Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane and bromoform) | No | Quarterly | 48.63 ⁽⁵⁾ (range = 32 - 68) | ug/l | N/A | MCL = 80 | By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter |
| See Mohawk Valley Water Authority AWQR for additional sample information - Physical Parameters, Radioactive Contaminants, Inorganic Contaminants, Synthetic Organic Contaminants, Principal Organic Contaminants, Lead and Copper | | | | | | | |

Notes:

- 1 - The level presented represents the 90th percentile of the twenty-two (22) 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, twenty-two (22) samples were collected at your water system and the 90th percentile value was the third highest value. The action level for copper was not exceeded at any of the sites tested.
- 2 - The level presented represents the 90th percentile of the twenty-two (22) samples collected. See additional information in about lead in the report below.
- 3 - The values presented represent the highest rolling annual average and range of the levels reported on the monthly microbiological sampling reports.
- 4 - Value presented represents the Maximum Residual Disinfectant Level (MRDL) which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. MRDLs are currently not regulated but in the future they will be enforceable in the same manner as MCLs.
- 5 - The levels represent the Highest Locational Running Annual Quarterly Average (LRAA) and range for all required compliance samples submitted under Stage 2 DBPR sampling requirements.

Definitions:

| | | |
|---|--------------|---|
| ACTION LEVEL | AL | The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow. |
| 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. |
| 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). |
| NON-DETECTED | ND | Laboratory analysis indicates that the constituent is not present. |
| TREATMENT TECHNIQUE | TT | A required process intended to reduce the level of a contaminant in drinking. |

WHAT DOES THIS INFORMATION MEAN?

We have learned through our testing that some contaminants have been detected; however, most of these contaminants were detected below the level allowed by the State.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

Last year, our system was in general compliance with applicable State drinking water operating, monitoring and reporting requirements.

Information about Lead.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical and mental development. Children could show slight defects in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Infants and young children are typically more vulnerable to lead in drinking water than the general population. Lead levels at your home may be higher than at other homes in the community because of the materials used in your home's plumbing. If you are concerned about elevated lead levels in your homes water, you may wish to have your water tested and you should flush your tap for 30 seconds to 2 minutes before using your tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. Please call our office if you have questions.

See Attached MWWA Report for additional required reporting, sampling, treatment and water source information.

ANNUAL DRINKING WATER QUALITY REPORT FOR 2021
Upper Mohawk Valley Regional Water Board
(Mohawk Valley Water Authority)
1 Kennedy Plaza
Utica, New York 13502
(Public Water Supply ID# NY3202411)

**MVWA Report – Use
with Supplemental
System reports for
required reporting
information**



INTRODUCTION

To comply with State and Federal regulations, the Mohawk Valley Water Authority (MVWA) will be annually issuing 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. All Federal and New York State Drinking Water Standards were met. This report provides an overview of last year's (2021) water quality. Included are details about where your water comes from, what it contains, and how it compares to State and Federal standards.

If you have any questions about this report or concerning your drinking water, please contact Philip Tangorra, Director of Water Quality, at 792-0301. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Water Board meetings. The meetings are held on the third Monday of each month at the Mohawk Valley Water Authority Conference Room, third floor, Utica City Hall at 5 P.M.

For non-English speaking / reading population:

"This report contains important information about your drinking water. Translate it or speak with someone who understands it."

Bosnian – Ovak izvještaj sadrži važne informacije o vodi za piće. Prevesti, ili razgovarati s neko ko razumije.

Russian - Этот отчет содержит важную информацию о вашей питьевой воды. Перевести его, или поговорить с кем-то, кто понимает его.

Somali – Warbixintani waxay ku qoran macluumaad muhiim ah oo ku saabsan biyo aad u cabbo. Fasiri karaa ama ula hadasho qof fasiri karaa adiga.

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

Vietnamese - Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Dịch nó, hoặc nói chuyện với một ai đó hiểu nó.

Simplified Chinese - 该报告包含有关饮用水的重要信息。翻译它，或者与别人谁了解它说话。

Traditional Chinese - 該報告包含有關飲用水的重要信息。翻譯它，或者與別人誰了解它說話。

WHERE DOES YOUR 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 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. To ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the level 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.

The water we drink gathers in the streams and creeks of a remote 374 square mile Adirondack Mountain watershed, far from settled areas and farmland. These tributaries drain into the West Canada Creek, which carries our water to the New York State-owned Hinckley Reservoir, the source of our water supply.

SOURCE WATER ASSESSMENT INFORMATION

A Source Water Assessment has been completed for our water system. Possible and actual threats to drinking water source(s) were evaluated. The 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 source(s). The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is or will become contaminated. The Source Water Assessment Program

(SWAP) is designed to compile, organize, and evaluate information to make better decisions regarding protecting sources of public drinking water. The report does not address the safety or quality of treated finished potable tap water. The source water assessment report is based on reasonably available information. Although efforts have been made to check the source water assessment report for accuracy, the large scope of this program and the nature of the available data make the elimination of all errors from these reports nearly impossible. It is important to note that source water assessment reports estimate the potential for untreated drinking water sources to be impacted by contamination. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted above.

During 2005 a source water assessment was completed under the NYS Department of Health's Source Water Assessment Program (SWAP). This assessment found a low to moderate susceptibility to contamination of our source water. Land cover and its associated activities within the assessment area did not increase the potential for contamination. Permitted discharges from facilities in the watershed do not represent an important threat to source water quality, based on their density in the assessment area. There are no likely contamination threats associated with other discrete contaminant sources, even though some facilities were found in low densities. Additional sources of potential contamination include the roadways in the watershed. In conclusion, it was noted that hydrologic characteristics (basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination.

See section "*Are there contaminants in our drinking water?*" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

Based upon the SWAP Report determinations, good judgment should be used, and caution should be exercised when determining land use near the source. We work hard to ensure that the source of water for our system is protected from contamination. MVWA has an established water quality monitoring program within the Hinckley watershed. In addition, the MVWA has existing Watershed Rules and Regulations (10NYCRR Chapter III Part 130.2) that regulate the land use and potential contamination sources around the water source. This is accomplished through a combination of land ownership and policing of the watershed area.

HOW IS YOUR WATER TREATED?

In 1990, after four years of careful testing, planning and design, construction of a water treatment and filtration plant began at a site near the village of Prospect. The facility became operational in 1992. The treatment plant includes a double filtration system designed to remove most of the organic matter and contaminants.

After our water has been filtered it is chlorinated. Chlorine is a disinfecting agent and kills bacteria present in the water. Chlorine levels are continuously monitored throughout our 650 miles of pipe that brings the water to your home.

Fluoride is added to your water in concentrations of 0.7 mg/l. Fluoride has been shown to reduce tooth decay and cavities.

Our water is treated to control corrosion of household plumbing that may contain metals such as lead. Calcium hydroxide (lime) and sodium carbonate (soda ash) are used in small amounts to buffer the water so that it is rendered non-corrosive to your home's plumbing. Lime and soda ash are naturally occurring substances, which pose no threat to human health. Lead levels measured in our customer's homes are in compliance with the Federal Lead Monitoring Program action levels.

FACTS AND FIGURES

Our water system presently serves approximately 126,250 people through over 38,900 service connections. The daily average amount of water treated was 16.9 million gallons per day. Our highest single day of production was 20.1 million gallons. The total water produced in 2021 was approximately 6.2 billion gallons. Some of the water was used for flushing water mains, filter backwashing, plant processes, equipment and hydrant testing, fighting fires, training firefighters, street cleaning and water main breaks and leakage. Approximately 3.3 billion gallons were sold to our customers. MVWA has an ongoing Leak Detection and Repair Program. All distribution mains within the MVWA system are surveyed by professional Leak Detection Contractors on a recurring basis. In the past 5 years, 2.0 to 2.5 MGD of non-revenue water demand has been eliminated through this aggressive program.

In 2021, residential water customers were charged approximately \$5.10 per 1,000 gallons of water (average family of four).

SYSTEM IMPROVEMENTS - During 2021 the MVWA continued its aggressive program of reinvestment in the Regional System.

WATER SYSTEM MAINTENANCE AND CAPITAL IMPROVEMENT SUMMARY

The Engineering, Distribution and Maintenance Departments continued to implement major physical and operational improvements throughout the Regional Transmission and Distribution System and Facilities in 2021. Nearly \$1,000,000 in Improvements were completed with another \$25,000,000 in various stages of design or construction. The Departments were able to accomplish these projects despite operational challenges that were encountered due to the ongoing COVID-19 pandemic.

MVWA utilizes system management tools to improve water service reliability and ensure sustainability throughout the Regional Water System. These management tools include the systemwide all pipe hydraulic model that is continually updated as improvements are completed. The model can also be utilized for water quality modeling. Real-time remote monitoring of pressure, flow and water quality parameters is accomplished utilizing the MVWA SCADA System. A systemwide replacement program of the SCADA system (electronic remote monitoring) was completed at the Water Treatment Plant and is progressing into the remainder of assets in the transmission & distribution system. GIS/Mapping system and annual Leak Detection Survey allows the tracking and reporting of water accountability for reducing unaccounted-for water.

The Departments are also responsible for preparing, bidding, and administering routine annual contracts for commodities and services including: Water Main Materials, Leak Detection, Generator Maintenance, Fence Repairs, Tree Removals, Backflow Testing, Asphalt Paving and Concrete repairs and numerous other System needs. There is also an annual Tank Diving contract that permits the cleaning and inspection of the tanks while they remain in service thus eliminating lengthy service interruptions.

A rollout of remote pressure monitoring devices (42 total) in PRV chambers was progressed throughout the year. These remote pressure monitoring devices give MVWA additional “eyes-and-ears” throughout the system to help respond quickly to system problems. All remote pressure monitoring devices are compatible with and able to be viewed in the new SCADA system. Repairs and upgrades to the chambers to improve access and safe working conditions also continue.

Department staff are active members of several professional associations and their governing Boards. While activity was reduced due to COVID, MVWA staff remained involved remotely and in-person.

PROJECTS AND OPERATIONS IN FY 2021 INCLUDED:

FACILITIES – PUMPSTATIONS AND WATER STORAGE TANKS

Significant work has been undertaken in the past several years to upgrade Pump Stations and Tanks ranging in age from 40 to 100+ years old. This past year included rehabilitation of the Welsh Bush Rd. concrete tank. General building improvements including lighting and

access-related safety upgrades, security door replacements and exterior wall repairs. A new generator was installed at Luke Road Pump Station to increase system resilience (removal of old generator slated for 2022). Hinman Road Station received a new electric service and high efficiency interior lighting. The Design Phase for three new offices in the Kemble Street Maintenance Facility was completed and is scheduled for construction in 2022. A systemwide evaluation of all facilities was started, with the intention of moving towards and “energy performance/design-build” approach that would provide procurement efficiency and allow for energy saving opportunities.

WATER MAIN REPLACEMENT & EXTENSIONS

The MVWA supported the City of Utica initiative to replace the infrastructure on Shaw Street. The late-1800s vintage watermain was replaced along with lead services for the entire City block from Genesee Street to Sunset Ave. Design phase work for main installation (and replacement) on Terrace Hill Road, Oxford Road, & Hoffman Road in the Town of New Hartford was completed. Construction is schedule for 2022 and 2023.

BRIDGE REPLACEMENT

The MVWA completed the construction phase of the Southern Reservoir Access Road Bridge Replacement. This early 1900’s bridge provides critical access to water storage tanks, control building, and emergency reservoirs.

RAW WATER MAINS & NORTH AND SOUTH PIPE BRIDGES

Raw Water Main Phase 1 Pipe Bridge Design was completed and put out to bid for construction phase. It is anticipated that this project will be completed in late 2022 or early 2023, depending on supply chain disruptions. Phase 2 Design Proposals were received and the MVWA intends to progress Phase 2 Final Design through 2022 with construction potentially starting Q1 2023.

FEMA PROGRAM to REPAIR “HALLOWEEN 2019 STORM” DAMAGE

FEMA has approved 24 water main and stormwater facilities repairs, and for consideration under their funding program for storm damage repairs and improvements. The MVWA projects are found in multiple locations for a total estimate at over \$5,000,000. All these projects qualify for the 87.5% State/Federal funding. Design Phase for these projects started in late 2021 and is anticipated to wrap-up by summer 2022. Construction phase operations will begin thereafter.

ARE THERE CONTAMINANTS IN YOUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, disinfection byproducts, and synthetic organic compounds. The table presented below 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.

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. 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 at 800-426-4791 or the Oneida County Health Department at 315-798-5064.

Table of Detected Contaminants

| Contaminant | Is System in Violation? | Date of Sample | Level Detected Average / Maximum (Range) | Unit Measurement | MCLG / MRDLG | Regulatory Limit (MCL, MRDL, TT or AL) | Likely Source of Contamination |
|--|-------------------------|------------------|---|------------------|--------------|--|---|
| Microbiological Contaminants– over 100 Coliform Samples Monthly (2,479 collected in 2021) | | | | | | | |
| Total Coliform | No | N/A | N/A ⁽¹⁾ | N/A | 0 N/A | Any positive sample ⁽²⁾ | Naturally present in the environment. |
| Physical Parameters | | | | | | | |
| Turbidity (Filtered Water) ^(3a) | No | 07/23/2021 | 0.26 (highest single measurement) ^(3a) | NTU | N/A | TT = <1.0 NTU | Soil Runoff |
| Turbidity (Filtered Water) ^(3b) | | All months ≤ 0.3 | 99.9% ≤ 0.3 (lowest monthly percentage of samples meeting specified limits) | | | TT = 95% of samples <0.3 NTU | |
| Turbidity (Distribution) | | Daily | 0.47 ⁽⁴⁾ (range = 0.04 – 7.85) | | | TT = <5 NTU (Monthly Average) | |
| Total Organic Carbon (Raw Water) | No | Monthly | 6.4 ⁽⁵⁾ (range = 2.7 – 10.5) | mg/l | N/A | TT (relative to removal rates) | Naturally present in the environment. |
| Total Organic Carbon (Filtered Water) | | | 1.3 ⁽⁵⁾ (range = 0.6 – 1.9) | | | | |
| Inorganic Contaminants | | | | | | | |
| Barium | No | 9/16/2021 | 0.006 | mg/l | 2 | MCL = 2 | Erosion of natural deposits. |
| Chloride | No | 9/16/2021 | 4.6 | mg/l | N/A | MCL = 250 | Naturally occurring. |
| Copper | No | 2021 | 0.016 ⁽⁶⁾ (range = ND – 0.070) | mg/l | 1.3 | AL = 1.3 | Corrosion of household plumbing systems; Erosion of natural deposits. |
| Fluoride (System Entry Point) | No | Daily | 0.7 ⁽⁷⁾ (range = 0.0 – 0.9) | mg/l | N/A | MCL = 2.2 | Erosion of natural deposits; Water additive that promotes strong teeth (<i>The MVWA water system adds Fluoride to the water</i>). |
| Fluoride (Distribution System) | No | Monthly | 0.7 ⁽⁸⁾ (range = 0.0 – 0.9) | | | | |
| Lead | No | 2021 | 11.9 ⁽⁹⁾ (range = ND – 77.3) | µg/l | 0 | AL = 15 | Corrosion of household plumbing systems; Erosion of natural deposits. |

Table of Detected Contaminants

| Contaminant | Is System in Violation? | Date of Sample | Level Detected Average / Maximum (Range) | Unit Measurement | MCLG / MRDLG | Regulatory Limit (MCL, MRDL, TT or AL) | Likely Source of Contamination |
|--|-------------------------|--|--|------------------|--------------|--|---|
| Nitrate | No | 2/3/2021 | 0.24 | mg/l | N/A | MCL=10 | Run off from fertilizer use, leaching of septic tanks, erosion of natural deposits. |
| Sodium | No | 9/16/2021 | 24.9 ⁽¹⁰⁾ | mg/l | N/A | See Note 11 below | Naturally occurring; part of pH adjustment additive. |
| Sulfate | No | 9/16/2021 | 18.0 | mg/l | N/A | MCL = 250 | Naturally occurring. |
| Disinfectants / Disinfection Byproducts | | | | | | | |
| Chlorine Residual | No | Daily/ Monthly | 0.97 ⁽¹¹⁾ (range = 0.2 – 2.1) | mg/l | N/A | MRDL = 4 ⁽¹²⁾ | Water additive used to control microbes. |
| Haloacetic Acids (mono-, di- and trichloroacetic acid, and mono- and dibromoacetic acid) | No | Quarterly | 19.8 ⁽¹³⁾ (range = 11.4 – 35.4) | µg/l | N/A | MCL= 60 | By product of drinking water disinfection needed to kill harmful organisms. |
| Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane and bromoform) | No | Quarterly | 55.1 ⁽¹⁴⁾ (range = 17.5 – 116.0) | µg/l | N/A | MCL = 80 | Byproduct of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter. |
| Unregulated Contaminants (UCMR4 Data) | | | | | | | |
| Bromochloroacetic Acid | No | June, September, & December 2019; March 2020 | ND – 0.61 ⁽¹⁵⁾ | µg/l | N/A | N/A | By product of drinking water disinfection needed to kill harmful organisms. |
| Dichloroacetic Acid | No | | ND – 17.6 ⁽¹⁵⁾ | µg/l | N/A | N/A | |
| Trichloroacetic Acid | No | | 3.2 – 19.3 ⁽¹⁵⁾ | µg/l | N/A | N/A | |
| Total Organic Carbon | No | | 3550 – 5240 ⁽¹⁶⁾ | µg/l | N/A | N/A | Naturally occurring. |
| Manganese | No | | 4.4 – 10.5 ⁽¹⁷⁾ | µg/l | N/A | N/A | Naturally occurring. |

Additional Detected Water Quality Parameters Collected Monthly (MVWA)

| Contaminant | Level Detected - Average or Maximum (Range) | Unit Measurement | Importance of Parameter Measurement for Treatment |
|-------------|---|------------------|--|
| pH | 9.50 (range = 6.6 – 9.95) | units | pH is a measure of the acidity or basicity of water. Solutions with a pH less than 7 are said to be acidic and solutions with a pH greater than 7 are basic or alkaline. The pH of our water has an effect on our water treatment and the efficiency of chemical treatment (e.g., coagulants, chlorine). |

Notes:

- 1 - We averaged 207 Total Coliform samples per month in 2021. No samples out of 2,479 total routine samples collected in 2021 were found to contain Total Coliform. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present. Additional samples would be subsequently collected after each positive sample for total coliforms. Since total coliforms were detected in <5% of the samples collected during each month when detected, the system did not have an MCL violation. It should be noted that E. coli, associated with human and animal fecal waste, was not found in any of the samples collected.
- 2 - A Level 1 assessment is triggered at systems collecting 40 or more samples per month when more than 5% of the total coliform samples are positive or at systems collecting less than 40 samples per month when two or more samples are total coliform positive. A Level 1 assessment can also be triggered if the system fails to take every required repeat sample after any single total coliform-positive sample.
- 3a - This value represents the highest daily average number reported.
- 3b - 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. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. 99.9% recorded during 2021 were within the acceptable range allowed.
- 4 - Turbidity is measured daily in the distribution system. State regulations require that the monthly turbidity average must always be below 5 NTU. The monthly average of the results in the months with highest turbidity levels were all below 5 NTU. June 2021 had the highest monthly average of Distribution Turbidity measurements (0.48 NTU).
- 5 - This level represents the average and range of values calculated from monthly sample submission results.
- 6 - The level presented represents the 90th percentile of the 50 sites tested in 2021. 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, fifty-five samples were collected at your water system and the 90th percentile value was the 6th highest value. The action level for copper was not exceeded at any of the sites tested. The next scheduled round of copper sampling is 2024.
- 7 - This level represents the average and range calculated from daily measurements.
- 8 - This level represents the average and range calculated from nearly 700 sample submission results.
- 9 - The level presented represents the 90th percentile of the fifty samples collected in 2021. In this case, fifty-five samples were collected at your water system and the 90th percentile value was the 6th highest value. The next scheduled lead sampling is 2024.
- 10 - 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.
- 11 - This level represents the average and range calculated from sample submission results.
- 12 - Value presented represents the Maximum Residual Disinfectant Level (MRDL) which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. MRDLs are currently not regulated but in the future, they will be enforceable in the same manner as MCLs.
- 13 - This level represents the highest Locational Running Annual Average along with the range of results for samples collected in compliance with the Stage 2 DBP Rule. Compliance with the MCL (60 ug/l) for HAAs is determined by the Locational Running Annual Average.
- 14 - This level represents the highest Locational Running Annual Average along with the range of results for samples collected in compliance with the Stage 2 DBP Rule. Compliance with the MCL (80 ug/l) for TTHMs is determined by the Locational Running Annual Average.
- 15 - These levels represent the range of all samples collected in compliance with the Unregulated Contaminates Monitoring Rule 4 (UCMR4)
- 16 - These levels represent the range of all samples collected in compliance with the Unregulated Contaminates Monitoring Rule 4 (UCMR4)
- 17 - These levels represent the range of all samples collected in compliance with the Unregulated Contaminates Monitoring Rule 4 (UCMR4)

Definitions:

| | | |
|---|--------------|---|
| ACTION LEVEL | AL | The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow. |
| 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. |
| 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). |

Definitions:

| | | |
|------------------------------|-----|---|
| NEPHELOMETRIC TURBIDITY UNIT | NTU | A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. |
| NON-DETECTED | ND | Laboratory analysis indicates that the constituent is not present. |
| TREATMENT TECHNIQUE | TT | A required process intended to reduce the level of a contaminant in drinking. |

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; however, these contaminants were detected below New York State requirements.

UNREGULATED CONTAMINANT INFORMATION

From 2018-2020, we are required to collect and analyze drinking water samples for the following unregulated contaminants: Cyanotoxins (Total microcystins, Anatoxin, Cylindrospermopsin), germanium, manganese, alpha-hexachlorocyclohexane, profenofos, chlorpyrifos, tebuconazole, dimethipin, total permethrin (cis & trans-), ethoprop, tribufos, oxyfluoren, HAA5, HAA6Br, HAA9, 1-butanol, 2-propen-1-ol, 2-methoxyethanol, butylated hydroxyanisole, o-toluidine, quinoline. We collected samples semi-monthly from August 1, 2018, through November 30, 2018, for cyanotoxins (8 total samples) from the entry point to the distribution system. The rest of the contaminants were sampled quarterly in June, September, & December 2019 and again in March 2020 per the EPA mandated schedule from either the source water, entry point, or pre-determined sites in the Distribution System. Detections are noted in the Table of Detected Contaminants. *You may obtain the monitoring results by calling Philip Tangorra, Director of Water Quality, at 315-792-0301.*

ADDITIONAL TESTING

In addition to the testing, we are required to perform; our water system voluntarily tests hundreds of additional substances and microscopic organisms to make certain our water is safe and of high quality. If you are interested in a more detailed report, contact the Water Quality Department at 315-792-0338; visit us on the web at www.mvwa.us. We'll be happy to answer any questions about MVWA and its Water Quality Department.

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 persons 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).

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

Last year, our system was in general compliance with State drinking water operating, monitoring, and reporting requirements.

CLOSING

To maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary to address these improvements.

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community and our way of life. Please call our office if you have questions.

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 several 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 fire-fighting 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 for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up and you can save almost 6,000 gallons per year.
- Check 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 Heat Tape to protect your pipes from freezing. This will save water AND protect septic systems from overuse.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

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Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons 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).

LEAD INFORMATION

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Our water system 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 or at <http://www.epa.gov/safewater/lead>.

INFORMATION ON FLUORIDE ADDITION

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, we monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l (the CDC's "interim" target level). During the last year monitoring showed that fluoride levels in your water were within 0.1 mg/l of the target level for 99% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride. Our fluoride addition facility is designed and operated to provide drinking water with this beneficial fluoride treatment. Additional reliable information regarding fluoridation in public water systems can be found online at: <http://www.cdc.gov/FLUORIDATION/> and <http://www.health.state.ny.us/prevention/dental/fluoridation/>.

WATER TREATMENT PLANT OPERATIONS

In August of 2017, MVWA entered into a partnership with SUEZ for the daily operation and maintenance of the Water Treatment Plant and related facilities. This 5-year contract provides the on-site leadership and technical support to enhance employee health & safety for those staffing the WTP and provides additional perspectives to remain in compliance with regulations. This unique relationship has MVWA well positioned for the future.