Annual Drinking Water Quality Report for 2022
Moreau Water Department
351 Reynold Road
Public Water Supply Identification Number NY4500177

INTRODUCTION

To comply with State regulations, the Town of Moreau Water Department 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. Last year, your drinking water met all State drinking water health standards. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our constant goal is and always has been to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources.

In an effort to reduce the costs of printing and mailing this report to over 2,000 water customers annually, we will be making this Annual Report available for review on the town's website at www.townofmoreau.org/Water/AnnualWaterQualityReport.pdf. If you do not have access to a computer and would prefer to continue receiving these reports manually please call the Town Clerk's Office at (518) 792-1030 ext. 3 and you will be put on a mailing list.

If you have any questions concerning this report or concerning your drinking water please contact: *Jeff Parish., 351 Reynolds Road, Moreau, NY 12828; Telephone 518-307-9510.* We want our valued customers to be informed about their water service. If you want to learn more, please attend any of our regularly scheduled Town Board meetings. They are held on the 2nd and 4th Tuesdays of each month, at the Town Hall, 351 Reynolds Road, Moreau, NY.

WHERE DOES OUR WATER COME FROM?

The Town of Moreau Water Department purchases its water from two different sources the Town of Queensbury and the Saratoga County Water Authority. The Queensbury Water District source is the Hudson River, a surface water supply that is located at the Sherman Island Dam and The Saratoga County Water Authority source is the Hudson River, a surface water supply.

Queensbury Water Treatment

Water is pumped from the river into a complete treatment facility. The treatment process at the Queensbury Water Treatment Plants consists of chlorination to protect against contamination from harmful bacteria and other organisms; coagulation using alum to cause small particles to stick together when the water is mixed, making larger heavier particles; sedimentation allows the newly formed larger particles to settle out naturally; filtration removes smaller particles by trapping them in sand filters; pH adjustment for corrosion control; post chlorination to prevent bacterial contamination.

Saratoga County Water Authority (SCWA)

The source water for SCWA is the upper Hudson River. Water treatment consists of addition of a coagulant and filtration through a 0.1-micron membrane filters and granular activated carbon filters. Caustic soda is added for pH adjustment and orthophosphates are added for corrosion control. Sodium hypochlorite is added for disinfection and to maintain a chlorine residual through the transmission system. There are two 1 million-gallon water storage tanks at the water plant. These tanks provide contact time for proper disinfection of water and provides storage for our pumping and transmission system.

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

The NYS Department of Health has evaluated the Hudson River's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this water supply. The Queensbury Water District and the SCWA provide treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

Based on documented polychlorinated biphenyl (PCBs) contamination of sediments upstream of the intake, the raw water is tested quarterly for PCBs. During 2022, PCB's were not detected in source or finished drinking water. It should also be noted that rivers in general are highly sensitive to microbial contaminants. A copy of the full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.

Unregulated Contaminant Monitoring 4 was conducted during 2019. This is a requirement of the 1996 Safe Drinking Water Act amendments. This monitoring provides a basis for future regulatory action to protect the public health. The number in parentheses refers to the number of measured for a total of 30 analytes. The breakdown of analytes is as follows: semi volatile organic chemicals (3), pesticides and pesticide manufacturing byproduct (9), metals (2), alcohols (3), cyanotoxin chemical contaminants (10), brominated haloacetic acid groups (3) and indicator compounds (2). We have listed those compounds that were detected in the table of Detected Contaminants for the Queensbury Water Department.

INFORMATION ON LEAD

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. The Town of Moreau Water Department is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact *Michael Mooney*, Town of Wilton 518-307-9510. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *http://www.epa.gov/safewater/lead*

WATER CONSERVATION TIPS

The Town of Moreau Water Department encourages water conservation. There are a lot of things you can do to conserve water in your own home. Conservation tips include:

- Only run the dishwasher and clothes washer when there is a full load
- Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute
- Water gardens and lawn for only a couple of hours after sunset
- Check faucets, pipes and toilets for leaks and repair all leaks promptly
- Take shorter showers

CAPITAL IMPROVEMENTS

During 2022 more hydrants were added in the distribution system for fire protection. We have continued our program of locating service lines for our card file.

CLOSING

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our system.

TOWN OF MOREAU WATER DEPARTMENT TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY4500177

Contaminant	Violation Y/N	Date of Sample	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Stage 2 Disinfection Byproducts (Quarterly samples from 2 sites)							
Haloacetic Acids [HAA5](LRAA1)[1] Range of values for HAA5	N	2/24/22 5/11/22 8/15/22 11/7/22	LRAA1 27 (13.6-31) LRAA2 32.9 (24-38.5)	µg/l	N/A	MCL=60	By-product of drinking water disinfection
TTHM[Total Trihalomethanes](LRAA2)[1] Range of values for TTHM	N	2/24/22 5/11/22 8/15/22 11/7/22	LRAA1 52.8 (19.1-43) LRAA2 71.4 (46.4-89.8)	µg/l	N/A	MSCL=80	By-product of drinking water chlorination
Chlorine (average value distribution system) (range of values for 2022)	N	daily testing	0.8 0.1.0-1.5	mg/l	N/A	MCL=4	Used in the treatment and disinfection of drinking water
Inorganic Contaminants							
Copper Range of copper concentrations	N	9/21/22- 9/22/22	0.174[2] 0.0035- 0.294	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Range of lead concentrations	N	9/21/22- 9/22/22	10.0[3] ND-56.4	µg/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

NOTES:

1. MCL for HAA5 and TTHM is based on a Locational Running Annual Average. The average shown represents the highest LRAA for 2022. The highest LRAA1 for TTHM was in the 3rd quarter and in the 2nd quarter for the HAAs. For LRAA2 the highest THM and HAA5 was in the 4th quarter 2022. (Spier Falls) was in the 4th quarter. For LRAA2(Amy Drive.). the highest LRAA was in the 4th quarter for HAA5 and the 3rd quarter for TTHM.
2. The level presented represents the 90th percentile of 20 test sites. 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, 20 samples were collected at your water system and the 90th percentile value was the 18th sample with 3rd highest value (level detected 0.174 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 20 test sites. The action level for lead was exceeded at 1 of the 20 sites tested.

HAA6 (range of 4 quarters 4sites)	N/A	3/13/19, 6/25/19, 9/12/19 12/9/19	<0.3-1.0	µg/l	N/A	N/A	By-product of drinking water disinfection
HAA9 (range of 4 quarters 4 sites)	N/A		13.9-21.1	µg/l	N/A	N/A	By-product of drinking water disinfection
Total Organic Carbon Raw Water	N/A		3.8-4.63	mg/l	N/A	N/A	Erosion of natural deposits

Notes

1. Water containing more than 20 ppm should not be consumed by persons on severely restricted sodium diets.
2. The Long Term 2 Enhanced Surface Water Treatment Rule was implemented by USEPA to monitor drinking water sources. Specifically, Giardia and Cryptosporidium which are highly resistant to traditional water treatment practices. Our system was required to test monthly for two years, starting October 2016. The results in the table are from Jan-Sept 2018. Please note that these results are prior to any water treatment. For more information please review the USEPA website.
3. Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest-level detected. Our highest single turbidity measurement for the year occurred 9/24/21 (0.12 NTU). State regulations require that entry point turbidity must always be below 1.0NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU. We met the requirement 100% of the time in 2022.
4. It has been determined that with respect to raw water TOC levels and raw water alkalinity, the Queensbury WTP achieved removals that were well within the acceptable range allowed on their filter effluent.
5. The UCMR4 regulation required us to collect samples to see the occurrence of certain contaminants in water and determine if future regulation is needed. There are no maximum contaminant levels for these chemicals at this time. Microcystins bi-weekly analyses during the summer of 2019 were also non-detect.

Glossary of Terms:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Parts per trillion (ppt) (ng/l) corresponds to one part of liquid to one trillion parts of liquid
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
90^{th} Percentile Value- The values reported for lead and copper represent the 90^{th} percentile. 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 90^{th} percentile is equal to or greater than 90% of the lead and copper values detected at your water system
Action Level - the concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.
Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
Maximum Contaminant Level Goal The "Goal" (MCLG) is 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.
Nephelometric Turbidity Unit (NTU)- A measure of the clarity of Water Turbidity in excess of 5 NTU is just noticeable to the average person.
Locational Running Annual Average (LRAA) - The LRAA is calculated each quarter by taking the average of the four most recent samples collected at each site
N/A- Not applicable

Also illustrated in the tables above, the Saratoga County Water Authority monitoring and testing detected some contaminants; all other contaminants were below the maximum levels permitted by the State, known as the maximum contaminant levels (MCL). Many of the test results were **NON-DETECTABLE.** The type/group (number of contaminants in each group) tested for were as follows: volatile organic compounds (52) + MTBE, synthetic organic compounds (41), PFOA/PSOS, asbestos The inorganic contaminants tested for and non-detectable were, arsenic, cadmium, chromium mercury, silver, selenium, antimony, beryllium, thallium, cyanide iron, color, odor and zinc.