

## *Joint Annual Drinking Water Quality Report 2019*

*P.O. Box 51- 1 Main Street Rushville, NY 14544*

**Federal ID # 3401164**

*Middlesex Water District # 1*

*P.O. Box 147- 1216 Route 245 Main Street Middlesex, NY 14507*

**Federal ID # 6101265**

### **Introduction**

We are pleased to present to you this year's Joint Annual Quality Water Report for the Village of Rushville and the Middlesex Water District #1. This report is designed to inform you about the quality water and services we deliver to you every day. The purpose of this report is to provide information about the quality of water that we provide to you. The Village of Rushville serves a population of over 2300 people. The Middlesex Water District serves a population of around 480 persons. Our constant goal is to provide you with 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 protect our water resources. We are committed to ensuring the quality of your water. If you have any questions about this report or concerning your water utility, please contact **for the Village of Rushville Art Rilands Water System Operator or the Rushville Village office (585-554-3415) for the Middlesex Water District Alan Williams, Water Superintendent (585-554-6952) or the Middlesex Town Office (585-554-3607)**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled Village of Rushville or Town of Middlesex board meetings. **The Rushville Village Board meetings are held on the second Monday of the month at 7:00 PM at the Village Hall on Main Street in Rushville. The Middlesex Town Board meetings are held the second Thursday of the month at 7:00 PM at the Town Hall corner of Main and Water Streets in Middlesex.**

### **Where does our water come from?**

For the Village of Rushville which is treated surface water from Canandaigua Lake, treatment starts at the intake which is located on the east shore of the lake on County Road 11. The 12" intake line extends 150 feet into the lake down over a shale rock ledge to a depth of 50 feet. The water temperature averages 38°F to 40°F. Turbidity at this location is minimized during storm water runoff. Chlorine is added at the intake to control Zebra mussels from plugging the intake. The water is then filtered at the Village's new treatment plant located on County Road 11. The treatment plant is a Diatomaceous Earth Filtration System. The filters are much like the Diatomaceous Earth filter on a swimming pool only much larger. The filters remove turbidity, micro-organisms, protozoans, viruses, and bacteria that might be present in the raw surface water taken from the lake. Chlorine is also added after the water has been filtered and is usually kept between 1.8 ppm and 2.0 ppm. Chlorine and Turbidity levels are monitored on continuous basis at the plant. This insures the water you receive is top quality every day.

Middlesex Water District #1 purchases it's water from the Village of Rushville.

In addition to the tests Rushville performs, the Middlesex Water District #1 also performs weekly tests for Chlorine in our own distribution system to ensure excellent water quality.

## Source Water Assessment Program

The State has completed a source water assessment for this source. This assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for protozoa, phosphorus, DBP precursors, and pesticides contamination. There is also a high density of sanitary wastewater discharges which results in elevated susceptibility for numerous contaminant categories. In addition, it appears that the total amount of wastewater discharged to surface water in this assessment area is high enough to further raise the potential for contamination (particularly for protozoa). There are no noteworthy contamination threats associated with other discrete contaminant sources.

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 from human activity.

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 & the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The Village of Rushville and Middlesex Water District #1 routinely monitors for constituents in your drinking water according to Federal and State laws. We are pleased to report that during the last year the water delivered to your home or business complied with all state and federal drinking water requirements. For your information we have compiled a list in the table below showing what substances were detected in our drinking water during 2019.

It should be noted that all drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that 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).

## TEST RESULTS

	Tested	Violation	Y/N	Detected Level	M.C.L.	M.C.L.G.	Source
Turbidity (NTU)**	Daily	N		.46	TT(<5NTU)	n/a	Soil runoff
Turbidity (NTU)**	Daily	N		100%	TT(95% of samples < 1NTU)	n/a	Soil Runoff
Nitrate (ppm)	12/19	N		0.34	10	10	Runoff from fertilizer use, leaching from septic tanks or sewage, erosion of natural deposits.
Chromium (ppm)	12/19	N		Not Detected	0.1	0.01	Corrosion of metal alloys and Stainless Steel; erosion from Chromium Containing rocks

Coliform	Monthly	N	0	n/a	2	Naturally present in the environment.
Barium (ppm)	12/19	N	0.0239	2	2	Discharge from metal drilling wastes; discharge from refineries, erosion of natural deposits
Radium 226 & 228 (pCi/L)	12/11	N	1.1	5	0	Erosion of natural deposits
Microcystin (ug)	8,9,10/19	N	0	****		Toxin produced by Blue Green Algae

**Stage II Testing Middlesex \*\*\***

HAA5 (ug/l)	2,5,8,11/19	N	35	60	n/a	By product of Chlorination
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(Range of Results 24-38)

THM (ug/l)	2,5,8,11/19	Y	89*****	80	n/a	By product of Chlorination
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(Range of results 78-100)

**Stage II Testing Rushville \*\*\***

HAA5 (ug/l)	3,6,9,12/19	N	32	60	n/a	By product of Chlorination
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(Range of results 26-37)

THM (ug/l)	3,6,9,12/19	N	84	80	n/a	By product of Chlorination
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(Range of results 78-100)

**LEAD & COPPER**

Substance (units)	Tested	Action Level	MCLG	Amount Detected	# of sites above Action Level	Typical Source
Lead (ug/l)	10/18	15	0	2	0*	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	10/18	1.3	1.3	0.55	0#	Corrosion of household plumbing; Leaching from wood preservatives; erosion of natural deposits

**Notes:**

\*\* - Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system

\*\*\* This level represents the highest locational running annual average calculated quarterly from data collected.

# 90 percentile 0 sites out of 10 above the Action Level for Copper (Range of results 0.16-58)

\* 90 percentile 0 sites out of 10 above the Action Level for Lead (Range of results ND-6.3)

n/a -not applicable

\*\*\*\* Microcystin is a toxin produced by Blue Green Algae. EPA’s 10 day Advisory Level for microcystin is 0.3 ug/L for infants and preschool children. Out of an abundance of caution, NYS Dept of Health issued a Do Not Drink Order for the Village of Rushville & The Town of Middlesex on 10/11/18, after the microcystin was detected in finished water collected on 10/9/18. Further sampling on 10/11 & 10/12/18 throughout the distribution system had no other detections. The Do Not Drink Order was lifted on 10/13/18. Sampling in 2019 had no detection in finished water.

\*\*\*\*\* Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

**Definitions:**

*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.

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

*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.

*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.

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

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**Is our water safe for everyone?** Although our drinking water met or exceeded state and federal regulations it should be noted that some people may be more vulnerable to disease causing micro-organisms 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 providers 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). The New York State Department of Health sets drinking water standards and has determined that the presence of total trihalomethanes is a possible health concern. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer. The New York State Department of Health has set an enforceable drinking water standard for total trihalomethanes to reduce the risk of these adverse health effects

## **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 all of our customers. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

**In Rushville call the Village Office (585-554-3415)**

**In Middlesex please call Alan Williams at (585-554-6952), the Middlesex Town Offices at (585-554-3607) or**

**New York State Health Department District Office in Geneva at (315-789-3030).**