

ANNUAL DRINKING WATER QUALITY REPORT FOR 2016 CANANDAIGUA-FARMINGTON WATER DISTRICT MANCHESTER VILLAGE AND TOWN WATER DISTRICTS

Introduction

We are pleased to present to you this year's Annual Water Quality Report. 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. 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. Last year, in the Canandaigua-Farmington Water District, the Town of Manchester and the Village of Manchester your tap water met all State drinking water health standards. 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 either:

Canandaigua-Farmington:	David Degear, Water Superintendent	(585) 924-3158
Town of Manchester:	Wayne Holtz, Water Superintendent	(585) 289-3010
Village of Manchester:	Jeff Liberati, Water Superintendent	(585) 289-4340
New York State Department of Health	Geneva District Office	(315) 789-3030

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 Town Board Meetings. The meetings are held:

Town of Farmington:	The second and fourth Tuesdays of each month at 7:00 p.m. at the Farmington Town Hall located at 1000 County Road 8, Farmington, New York.
Town of Manchester:	The second Tuesday of each month at 6:00 p.m. at the Manchester Town Hall located at 1272 County Road 7, Clifton Springs, New York.
Village of Manchester:	The first Monday of each month at 6:00 p.m. at the Manchester Village Hall located at 8 Clifton Street, Manchester, New York.

Where Does Our Water Come From?

Our water source is surface water source, Canandaigua Lake. The Canandaigua-Farmington Consolidated Water District is supplied from City of Canandaigua. The City of Canandaigua operates a Water Filtration Plant located on West Lake Road in the Town of Canandaigua. After filtration, carbon can also be added for taste and odor control. The water is disinfected by injection of gaseous chlorine, sodium hydroxide is added for pH control to reduce corrosion in the distribution system and then fluoride is added before being pumped to the distribution system. The treated water enters the Canandaigua-Farmington Consolidated Water District through meter pits located at the City of Canandaigua line or at the connection point with the City of Canandaigua's transmission main. The Canandaigua-Farmington Consolidated Water District supplies treated water from the City of Canandaigua to the Village of Manchester and the Town of Manchester Central District.

New York State Department of Health has completed a source water assessment for Canandaigua Lake with the following results:

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. 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. However, 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 is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include: IHWS, CBS, landfills, mines, RCRA, and TRI.

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 human activity.

Contaminants that may be present in source water include:

- > **Microbial contaminants**
- > **Inorganic contaminants**
- > **Pesticides and herbicides**
- > **Organic chemical contaminants**
- > **Radioactive contaminants**

Facts and Figures

The **Canandaigua-Farmington water system** serves over 12,000 people through 4,264 service connections. The total water purchased for the year in 2016 was 642.787 million gallons. The daily average of water treated and pumped into the distribution system was 1.761 million gallons per day. Our highest day was 3.132 million gallons for the year. The amount of water delivered to customers was 557.220 million gallons for the year. 1.287 million gallons were distributed through fire hydrant meter rentals. This leaves an unaccountable water total of 84.280 million gallons for the year. Approximately 20% of our unaccountable water was used to flush watermains and hydrants, and for fighting fires and fire protection, which included a high usage of water for the fire at America's Best Value Inn located at 6037 NYS Route 96 resulting in a total loss of the structure. Approximately 10% of our unaccountable total water was due to water main leakage. This leaves an unaccountable total of 58.99 million gallons, which is 9.18% of the total water purchased for 2016. In 2016, water customers were charged \$3.70 per 1,000 gallons for 0 to 6,000 gallons of water used and additional usage over 6,000 gallons is \$4.25 per 1,000 gallons or a minimum quarterly bill of \$22.20.

The **Canandaigua-Farmington Consolidated Water District** sells water to the Town and Village of Manchester. Their System facts and figures are as follows:

- The **Village of Manchester** services a population of 1,709 through 495 service connections. The total water purchased in 2016 was 46.647 million gallons. The daily average to the distribution system was 127,800 gallons per day. The single highest day was 261,000 gallons. The amount of water sold to customers was 39.345 million gallons. Water loss due to water main breaks/leaks 160,000 gallons. Approximately 320,000 gallons of water was used to flush watermains and hydrants, fighting fires, etc. This leaves an unaccounted total of 6.822 million gallons, which is 14.62% of the total purchased. In 2016, water customers were charged \$26.00 for 0 to 5,000 gallons of water used as the minimum quarterly bill. Any additional usage over 5,000 gallons is \$4.50 per thousand. \$4.00 water meter rent per quarter.

- The **Town of Manchester Water Districts** services a population of 991 through 545 service connections. The total water purchased in 2016 was 67.288 million gallons. The daily average to the distribution system was 184.351 gallons per day. The single highest day was 404,000 gallons. The amount of water sold to customers was 45.280 million gallons. Approximately 8.030 million gallons of water was used to flush water mains, hydrants, and fighting fires. This leaves an unaccounted total of 13.978 million gallons which is 20.77% of the total purchased. In 2016 water customers were charged \$32.00 0 to 6,000 gallons of water used as the minimum quarterly bill. Any additional usage over 6,000 gallons is \$3.70 per 1,000 thousand. \$1.25 water meter rent per quarter. 180 feet of water main was added on Thompson Road and added one customer.

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. Fluoride is added to your drinking water by the City of Canandaigua before it is delivered to the Canandaigua-Farmington water system. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.7 to 1.2 mg/L (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that the City of Canandaigua monitor fluoride levels on a daily basis. In 2015 the City of Canandaigua's average was 0.79 mg/L. None of the monitoring results showed fluoride at levels greater than the 2.2 mg/L MCL for fluoride.

Are There Contaminants In Our Drinking Water?

In order to ensure that tap water is safe to drink, we routinely test your drinking water. The New York State Department of Health and the Environmental Protection Agency prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. 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.

Canandaigua-Farmington Water District is required to test for List 1 contaminants, one of which is strontium, under the third round of Unregulated Contaminant Monitoring Rule (UCMR3). This monitoring provides a basis for future regulatory requirements.

In accordance with State regulations, the **City of Canandaigua** routinely monitors your drinking water for numerous contaminants. They test your drinking water for coliform bacteria, turbidity, inorganic contaminants, lead and copper, nitrate, volatile organic contaminants, total trihalomethanes, and synthetic organic contaminants. The table presented below depicts which contaminants were detected in your drinking water. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Therefore, some of the data, though representative of the water quality, is more than one year old. Test results were all negative except for those indicated on the following table. The **Canandaigua-Farmington Consolidated Water District** tested the water for coliform bacteria at least thirteen (13) times a month. The **Village of Manchester** tested the water for coliform bacteria two times per month. The **Manchester Central Water District** tested the water for coliform bacteria once per month.

The table presented below depicts which compounds were detected in your drinking water.

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)**.

TEST RESULTS

Substance (Units)	Violation Y/N	Date of Sample	Level Detected	Range Low - High	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria⁵ (ppm) CFWD Town of Manchester Village of Manchester	No	2016	N/A	0-2	0	>5% positive	Naturally present in the environment
Turbidity Combine Filter Effluent (NTU)²	No	2016	0.11 Max	0.01-0.11	N/A	TT=0.3	Soil runoff
Turbidity Individual Filter (NTU)²	No	2016	99% ≤ 0.3	N/A	N/A	TT=0.3	Soil runoff
Radiological Gross Alpha (pCi/l)	No	12/2013	ND	N/A	0	15	Erosion of natural deposits
Radium 226 (pCi/L)	No	02/2013	ND	N/A	0	5	Erosion of natural deposits
Radium 228 (pCi/L)	No	02/2013	0.4	0.4	0	5	Erosion of natural deposits
Inorganic Contaminants							
Lead (ppb)	0 ⁴ -No	06/2014	2.6 ³	< 1-6.1	N/A	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Copper (ppm)	No	06/2014	0.061 ³	0.0011-0.44	N/A	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Fluoride (ppm)	No	2016	0.73	0.58-0.93	N/A	2.2	Erosion of natural deposits; water additive; discharge from aluminum and fertilizer factories
Barium (ppm)	No	08/2016	0.024	N/A	2	2	Discharge of drilling wastes, metal refineries; erosion of natural deposits
Nickel (ppb)	No	08/2016	1.2	N/A	100	100	Erosion of natural deposits; discharge from stainless steel factories
Nitrate (ppm)	No	05/2016	0.23	N/A	10	10	Runoff from fertilizer use; leaching from septic tanks; Erosion of natural deposits
Chromium (ppb)	No	08/2016	0.003	N/A	100	100	Erosion of natural deposits; discharge from steel factories
Strontium (ppb)	No	2014	106	99.3-121	N/A	N/A	Naturally present in the environment
Alkalinity (ppm)	No	2016	112	108-118	N/A	N/A	Naturally present in the environment
Total Organic Carbon (ppm)	No	2016	2.7	2.2-3.1	N/A	N/A	Naturally present in the environment, measured at Entry Point
Dissolved Organic Carbon (ppm)	No	2016	2.31	2.0-2.7	N/A	N/A	Naturally present in the environment
UV254 (cm⁻¹)	No	2016	0.026	0.0213-0.0307	N/A	N/A	
Specific Ultraviolet Absorbance (L/mg-m)	No	2016	1.15	0.88-1.33	2	N/A	

TEST RESULTS CONTINUED

Volatile Organic Contaminants

TTHM (ppb) [Total trihalomethanes]							By-product of drinking water chlorination
Stage 2							
CFWD	No	2016	74 ³	30-95	N/A	80	
Town of Manchester	No	2016	67	53.7-72.10	N/A	80	
Village of Manchester	No	2016	65 ⁵	43-95.7	N/A	80	
Total Haloacetic Acids (ppb)							By-product of drinking water Chlorination
Stage 2							
CFWD	No	2016	31 ³	ND-38	N/A	60	
Town of Manchester	No	2016	44 ³³	36.5-46.3	N/A	60	
Village of Manchester	No	2016	33 ⁷	29-40.2	N/A	60	

Definitions:

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

Maximum Amount Detected: This column represents an average of sample result data collected during the reporting year. In some cases, it may represent a single sample if only one sample was collected.

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 possible.

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.

N/A: Not applicable

ND: Not detectable at testing limits.

Nephelometric Turbidity Unit (NTU): Measure of the clarity, or turbidity, of water.

Parts per Million: One part of liquid in one million parts of liquid (or milligram per liter).

Parts per Billion: One part of liquid in one billion parts of liquid (or microgram per liter).

Ranger (Low – High): This column represents a range of individual sample results, from lowest to highest, that were collected during the reporting year.

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

Picocuries per liter (pCi/l): Picocuries per liter is a measure of radioactivity in water.

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 disinfectant to control microbial contamination.

¹Fluoride is added to the water supply to help promote strong teeth. The Department of Public Health recommends an optimal fluoride concentration range of 0.7 ppm to 1.2 ppm. Measured on laboratory's finished water.

²Turbidity is a measure of the cloudiness of the water, and is monitored as an indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of monthly samples be below 0.3 NTUs. Measured in lab.

³The level presented represents the 90th 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 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system.

4Number of homes out of 30 that were above the action level.

5Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful bacteria may be present.

7This level represents the highest locational running annual average calculated from data collected.

Lead. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using your tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

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.

Do I Need To Take Special Precautions?

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).

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 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 in your home 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 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.

System Improvements

1. Completed installation of 2,204 linear feet of new 8" DR-14 PVC water main in the Town of Canandaigua along County Road 28 from Cowan Road heading south to the City Line, and North Road from County Road

- 28 to Mohawk Lane.
2. Completed installation of 2,700 linear feet of new 10" DR – 14 PVC water main along Mertensia Road from Antler Drive heading south to Mertensia Park Entrance in the Town of Farmington.
 3. Completed installation of 1,450 linear feet of new 8" DR – 14 PVC water main along Risser Road from Emerson Road heading south to County Road 28 in the Town of Canandaigua.
 4. Developer installed new 12" DR – 14 PVC water main along New Michigan Road from Lilly Brook in a south ward direction to Monarch Manor, near the Canandaigua-Farmington Town Line Road, in the Town of Farmington.
 5. Completed asphalt paving and restoration work at the bi-directional metering pit at 4000 Fox Road that eliminated a closed water valve that feeds water to the Town of Manchester.
 6. Continued the yearly fire hydrant painting and maintenance in the southwest, northeast and northwest quadrants of Canandaigua-Farmington Water District, including completion of installing reflective hydrant markers.
 7. Replacement of 38 each of the old 1961 two-bib Kennedy K-11 fire hydrants and 6" valves with new three-bib Kennedy K-81-D's and the 6" guard valves along NYS Route 96 eastward from County Road 8 to NYS Route 332; Emerson Road from NYS Route 332 to Sand Hill Road; and Allen Padgham Road/Sheldon Road from County Road 8 in a westward direction to Bowerman Road; Church Street at Hook Road; and Farmington Road to the County Line.
 8. Design and approval obtained to eliminate the two 'dead-end' water connections at the NYS Route 332 Park-N-Ride and Plaster Mill Road as recommended by the NYSDOH, with the installation of approx. 1200 linear feet of 8" ductile iron pipe to complete the hydraulic loop along NYS Route 332.
 9. Began developing funding options and design for the replacement of our 1961 one-million gallon water tank, Tank #1 at Brickyard Road along with a new 16" transmission line from Brickyard Road to Canandaigua Farmington Town Line Road.
 10. Design was authorized for a bi-directional, low and high flow, metering pit on Andrews Road near Arnold Road to eliminate a closed water valve feeding water to the Town of Hopewell and the Hopewell-Canandaigua Water District.
 11. Completed the installation of a pressure reducing and pressure sustaining pressure vault PRV-7 at Nettle Creek Lane and County Road 41 for Auburn Meadow Section 5 (joint venture with developer).
 12. Continued replacement of our 2000 and 2001 Badger/Itron water meters due to the 15-year battery life expectancy.

Closing

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. Please call our office if you have questions.

- Canandaigua-Farmington (585) 924-3158
- Town of Manchester (585) 289-3010
- Village of Manchester (585) 289-4340
- New York State Department of Health (315) 789-3030

This Report Covers Public Water Supply ID Numbers:

Canandaigua-Farmington Consolidated Water District: 3401151

Village of Manchester: 3401160

Town of Manchester: Central Manchester: 3430021, WD: 3430014, WD3: 3430020