



**Annual Drinking Water Quality Report  
for the Year 2023  
"THE WATER WE DRINK"  
WAYNE COUNTY WATER & SEWER AUTHORITY  
3377 Daansen Road, Walworth, N.Y. 14568**

For water customers in the Wayne County Water and Sewer Authority's **Palmyra South Service Area** (PWS ID #NY5830003) supplied by the City of Canandaigua, located in the town of Palmyra, Wayne County, NY.

## **INTRODUCTION**

To comply with State regulations, the Wayne County Water & Sewer Authority 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 tap water met all State drinking water health standards.

If you have any questions about this report or concerning your drinking water, please contact Mr. Martin J. Aman, Executive Director, Phone: (315) 986-1929, Fax: (315) 986-1687 or email: [maman@wcwsa.org](mailto:maman@wcwsa.org). We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled board meetings. The meetings are held on the fourth (4<sup>th</sup>) Tuesday of each month at 4:00 p.m. at the Wayne County Water & Sewer Authority building, 3377 Daansen Road, Walworth. Or you may visit our website at [www.wcwsa.org](http://www.wcwsa.org).

## **WHERE DOES OUR WATER COME FROM?**

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink the State and the Environmental Protection Agency (EPA) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the Food and Drug Administration's (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

For its Palmyra South Service Area, the Wayne County Water and Sewer Authority receives its water from the Town of Manchester, primarily to supply a portion of the Town of Palmyra. This Canandaigua Lake water is filtered; carbon can also be used 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 fluoride is added before being pumped to the distribution system. The City of Canandaigua did not experience any restriction of their water source, in 2023.

## **SOURCE WATER ASSESSMENT PROGRAM**

The New York State Department of Health (NYSDOH) has evaluated the susceptibility of water supplies statewide for potential contamination under the Source Water Assessment Program (SWAP). For Canandaigua Lake, the assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural lands in this assessment area results in elevated potential for protozoa, phosphorus, disinfection by-product (DBP) precursors and pesticides contamination. While there are some wastewater treatment 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 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. Because storm and waste water contamination remain potential threats to any source water, the water provided to you undergoes rigorous treatment and testing prior to its delivery. For more information on the SWAP summary and how you can help protect the source of your drinking water contact NYSDOH.

## **FACTS AND FIGURES**

This water system serves approximately 200 people through 68 service connections. The total amount of water delivered to customers in 2023 was approximately 8 million gallons. In this service area, the total water purchased was approximately 9 million gallons, the unsold water being water used for firefighting and flushing of mains, as well as water lost through leaks, slowed meters, unauthorized use of water, etc. In 2023, water customers were charged \$5.00 per 1,000 gallons of water, and a \$30.00 basic service charge per quarter. This rate would result in an annual water charge of \$370.00 for a customer using 50,000 gallons per year, an average use for a family of three. \*\*\*The basic service charge reflects a ¾" – 1 ½" meter; meters larger than 1 ½" have a basic service charge based on size and type of meter.

## **ARE THERE CONTAMINANTS IN OUR 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, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The Wayne County Water & Sewer Authority and its suppliers send their samples to independent New York State certified water quality testing laboratories. The accompanying table 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, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800) 426-4791 or log on to EPA's Drinking Water Website: [www.epa.gov/safewater/](http://www.epa.gov/safewater/). If you have questions or concerns about the quality of your water, please feel free to contact the Authority or the local office of the NYSDOH.

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The Wayne County Water and Sewer Authority is required to collect and analyze at least one (1) total coliform sample from within the Authority's distribution system per month. No samples exceeded New York State Health Department or EPA drinking water standards.

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

The accompanying table shows the **detected results only** of monitoring for the period of January 1 to December 31, 2023, based upon information as provided by our suppliers.

<b>Substance</b>	<b>Units</b>	<b>Violation Yes/No</b>	<b>MCL</b>	<b>Date of Sample</b>	<b>City of Canandaigua</b>	<b>WCWSA</b>	<b>Source</b>
Barium	ppm	No	2	2/2023	0.024	N/A	Erosion of natural deposits
Nitrates	ppm	No	10	2/2023	0.36	N/A	Erosion of natural deposits
Total Trihalomethanes *footnote 2	ug/l	No	80	2023 quarterly	29 14-47	86.5 (47-104) 2023	By-product of drinking water chlorination
HAA5 *footnote 2	ug/l	No	60	2023	59 30-93	24.275 (19-31.1) 2023	By-product of drinking water chlorination
Copper *footnote 3	ug/l	No	AL=1300	6/2023	90% - 3.1 Range of detects (1.3-41)	320 (1-390) 2022	Corrosion of household plumbing systems; erosion of natural deposits
Lead *footnote 3	ug/l	No	AL=15	6/2023	90% - 1.3 Range of detects (<1 – 9)	ND ND-ND 2022	Corrosion of household plumbing systems; erosion of natural deposits
Turbidity Combine Filter *footnote 4	NTU	No	TT=99% of samples = ≤ 0.3	2023	0.19 Max 0.03-0.24	N/A	Soil Runoff
Turbidity Individual Filter *footnote 4	NTU	No	TT=99% of samples = ≤0.3	2023	≤ 0.3	N/A	Soil Runoff
Nickel	ppb	No	100	2/2023	1.3	N/A	Erosion of natural deposits
Chromium	ppb	No	100	2/2023	<1	N/A	Erosion of natural deposits; discharge from steel and pulp mills
Strontium	ppb	No	N/A	2014	106 99.3-121	N/A	Naturally present in the environment
Alkalinity	ppm	No	N/A	2023	119 113-124	N/A	Naturally present in the environment
Total Organic Carbon	ppm	No	N/A	2023	2.45 1.7-4.9	N/A	Naturally present in the environment
Dissolved Organic Carbon	ppm	No	N/A	2023	2.21 1.7-2.7	N/A	Naturally present in the environment
UV254	cm	No	N/A	2023	0.0262 0.0190-0.0262	N/A	

Specified Ultraviolet Absorbance	L/mg-m	No	2	2023	1.20 0.85-1.36	N/A	
Fluoride *footnote 1	mg/L	No	2.2	2023	0.71 <0.2-0.97	N/A	Natural and additive which promotes strong teeth
Perfluorooctanesulfonic acid	Ng/L	No	10	2/2022	<2	N/A	Fire fighting foam
Perflurorooctanoic acid	Ng/L	No	10	2/2022	<2	N/A	Fire fighting foam
1,4-Dioxane	Ppb	No	1	2/2022	<0.04	n/a	
Gross Alpha	pCi/l	No	15	2/2022	1.0 +/- 1.4	N/A	Erosion of natural deposits
Radium/226	pCi/l	No	5	2/2022	-0.15 +/- .03	N/A	Erosion of natural deposits
Radium/228	pCi/l	No	5	2/2022	0.32 +/- 0.4	N/A	Erosion of natural deposits

**\*footnote 1** (Fluoride) – Fluoride is added to the water supply to help promote strong teeth. The NYS Department of Health recommends an optimal fluoride concentration range of 0.7 ppm to 1.2 ppm. Measured on laboratory’s finished water.

**\*footnote 2** (TTHM & HAA5) – This level represents the highest Locational Running Annual Average (LRAA) calculated quarterly from data collected. Routine sampling analyzed quarterly for disinfection byproducts indicate the presence of Total Trihalomethanes (TTHMs) at a locational running average of 87 micrograms per liter (ug/L) which exceeds the maximum contaminant level (MCL) of 80 ug/L.

**\*footnote 3** (Lead & Copper) - The level presented represents the 90th percentile of the 5 samples collected. The action level for copper or lead was not exceeded at any of the 5 sites tested.

**\*footnote 4** (Turbidity) -Turbidity is a measure of the cloudiness of the water. This is tested because it is a good indicator of the effectiveness of the filtration system. At no time in 2023 did the turbidity exceed 1.0 NTU. State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below ≤ 0.3 NTU.

**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 Wayne County Water and Sewer Authority 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 the Wayne County Water & Sewer Authority office at (315) 986-1929. 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>.

**Copper:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing in excess of the action level over many years could suffer liver or kidney damage. People with Wilson’s Disease should consult their personal doctor.

#### DEFINITIONS OF TERMS IN TABLE

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking

water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

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

**Non-Detects (ND):** Laboratory analysis indicates that the constituent is not present.

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Milligrams per liter (mg/l):** Corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).

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

**Nanograms per liter (ng/l):** Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion – ppt).

**Picograms per liter (pg/l):** Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

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

**Millirems per year (mrem/yr):** A measure of radiation absorbed by the body.

**Million Fibers per Liter (MFL):** A measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Not applicable (NA)**

**Not Sampled (NS)**

**Not Required (NR)**

**Not Required to Sample (NRS)**

## WHAT DOES THIS INFORMATION MEAN?

As you can see by the above table, our system did have a violation. Required water quality tests conducted quarterly indicated the presence of total trihalomethanes (TTHM) at 87 micrograms per liter (ug/l) in the first quarter of 2023 which are above the maximum contaminant level (MCL) allowed in a public water supply of 80 ug/l. This is a maximum contamination level violation of the State Sanitary Code Section 5-1.52 Table 3. This violation requires public notice be provided to customers on a quarterly basis as long as the violation exists. These violations affected a portion of the Town of Palmyra and appropriate notice was provided to the residents in the affected area each quarter as required. The remaining three quarters of 2023 did not exceed the MCL of 80 ug/l.

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. Trihalomethanes are a group of chemicals that includes chloroform, bromoform, bromodichloromethane, and chlorodibromomethane. Trihalomethanes are formed in drinking water during treatment by chlorine, which is the most commonly used disinfectant in New York State. Chlorine reacts with certain acids that are in naturally occurring organic material (e.g. decomposing vegetation such as tree leaves, algae or other aquatic plants) in surface water sources such as rivers and lakes. The amount of trihalomethanes formed in drinking water during disinfection can change from

day to day, depending on the temperature, the amount of organic material in the water, the amount of chlorine added, and a variety of other factors. Drinking water is disinfected by public water suppliers to kill bacteria and viruses that could cause serious illnesses. For this reason, disinfection of drinking water by chlorination is beneficial to public health.

Some studies suggest that people who drink chlorinated water (which contained trihalomethanes) or water containing elevated levels of trihalomethanes for long periods of time may have an increased risk for certain health effects. For example, some studies of people who drank chlorinated drinking water for 20 to 30 years show that long term exposure to disinfection by-products (including trihalomethanes) is associated with an increased risk for certain types of cancer. A few studies of women who drank water containing trihalomethanes during pregnancy show an association between exposure to elevated levels of trihalomethanes and small increased risks for low birth weights, miscarriages and birth defects. However, in each of the studies, how long and how frequently people actually drank the water, as well as how much trihalomethanes the water contained is not known for certain. Therefore, we do not know for sure if the observed increases in risk factor for cancer and other health effects are due to trihalomethanes or some other factor. The individual trihalomethanes, chloroform, bromochloromethane and dibromochloromethane cause cancer in laboratory animals exposed to high levels over their lifetime. Chloroform, bromodichloromethane and dibromochloromethane are also known to cause effects in laboratory animals after high levels of exposure, primarily on the liver, kidneys, nervous system and on their ability to bear healthy offspring. Chemicals that cause adverse health effects in the laboratory animals after high levels of exposure may pose a risk for adverse health effects in humans exposed to lower levels over long periods of time.

The WCWSA is working closely with the City of Canandaigua, Village of Manchester and the Towns of Canandaigua, Manchester, Farmington and Hopewell (as purchasers of wholesale water from the City) to modify the re-chlorination, flushing and monitoring programs within the affected area to reduce the THM levels below the established maximum contaminant level. The WCWSA is also working closely with the New York State Department of Health to determine an appropriate plan of action to resolve the issue.

### **IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?**

During 2023 our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

### **DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as 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).

### **INFORMATION ON FLUORIDE ADDITION**

This supplier's 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 water by the City of Canandaigua before it is delivered to us. 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, the City of Canandaigua monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/L (parts per million). During 2023 monitoring showed that fluoride levels in your water were between 0.60 and 0.80 mg/L 72% of the time. None of the monitoring results showed fluoride at levels that exceeded the 2.2 mg/l MCL for fluoride.

### **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 transmission mains, 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. Conservation tips include:

- Automatic dishwashers use 4-6 gallons for every cycle, regardless of how many dishes are loaded. So, get a run for your money and load it to capacity.
- Turn water off while shaving and/or brushing your teeth. Take showers instead of baths.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you can 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. Then check the meter after 15 minutes, if it moved, you have a leak.
- Replace older fixtures with water-saving devices.
- When washing your car, use a bucket for washing and turn on the hose only for rinsing.
- Curb lawn watering – water your lawn only when necessary, and water between the hours of 8:00 p.m. - 10:00 a.m.
- Put a layer of mulch around trees and plants to hold water for your plants.
- If you have a swimming pool, fill it during the night when demands on power and water production systems are less.

### **SYSTEM IMPROVEMENTS:**

The Authority continued to work on the distribution system maintenance program. This included flushing of dead end water mains, maintenance and painting of fire hydrants, exercising of main line and gate valves throughout the system and continuation of the residential water meter replacement program throughout the overall service area, and also monitoring the cross connection back flow prevention program with three certified backflow testers. As the Authority crews go about the system they are always looking for possible leaks.

### **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 and systems, which are the heart of our community. In addition to helping us with the conservation measures as outlined in this report, we also ask for your co-operation in reporting any unusual or suspicious activity around any of our water facilities, including tanks, hydrants, pump stations, etc. We encourage you to notify us immediately at (315) 986-1929 if you observe any suspicious activities, or if you notice any new or unusual wet spots or other signs that may indicate a leak in the water system. As always, please feel free to call at any time if you have any questions or concerns about your water supply or our operation in general.