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 **Arcadia-Lyons Consolidated Service Area** (CSA) (PWS ID #NY5821130) supplied by the Village of Newark, located in the towns of Arcadia and Lyons, Wayne County, New York. This report also includes the former Village of Lyons (PWS ID #NY5801229) and the Town of Lyons Grist Mill / Westphall WD (PWS ID # NY5817537).

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. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where you water comes from, what it contains, and how it compares to State 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. 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 (4th) 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.

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 Departments 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 Arcadia Lyons consolidated service area in 2023, the Wayne County Water & Sewer Authority received water from the Village of Newark, which uses Canandaigua Lake as its source of water. This lake is approximately 16.4 square miles in surface area and has a watershed area of about 174 square miles. The Village is permitted to draw 4.0 million gallons of water per day to be used as a source of supply for its water treatment plant located at 1708 Freshour Road, Shortsville, New York. Water, as it enters the intake line in Canandaigua Lake, has chlorine added to control the growth of Zebra Mussels. These mussels have been proven to clog pipe lines by their rapid growth. The water flows by gravity through a 24" line to the Filter Plant. At the treatment plant, all water is filtered by either "Slow Sand Filtration", "Diatomaceous Earth Pressure Filtration" and/or "Diatomaceous Earth Vacuum Filtration." There are four Slow Sand filters and three D.E. filters with an overall capacity of 3.4 million gallons per day. After filtration, chlorine is added at a rate of approximately 1.8 parts per million for disinfection. Fluoride is also added to the water at a rate of 1 part per million. These are recommended levels set by the New York State Department of Health. From the Filter Plant, the water flows through a 20" pipeline to a point near the intersection of Rt. 96 and County Rd 7 where the line divides into two 16" pipelines. One 16" line carries water north, approximately 7 miles, to the 4-million-gallon capacity Allerton Hill Reservoir. This flow is entirely by gravity. The other 16" line carries water east, approximately 4.25 miles, where it connects to a 14" transmission line. This line, which was originally used to carry water from Newark Lake, goes north, into the Village and the 1-million-gallon capacity South Hill Standpipe. During 2023, the

Village of Newark water system did not experience any restriction of their water source.

SOURCE WATER ASSESSMENT PROGRAM

The NYS DOH has recently completed a source water assessment (SWAP) of the lake. For the Village of Newark, the source water assessment has 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, phosphorous, disinfection by-product (DBP) precursors, and pesticides contamination. There is also a moderate density of sanitary wastewater discharges, but the ratings for the individual discharges do not result in elevated susceptibility ratings. 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 are no noteworthy contamination threats associated with other discrete contaminant sources.

FACTS AND FIGURES

This water system serves approximately 5,800 people through 1934 service connections. The total water purchased by W.C.W. & S.A. in 2023 for the Arcadia Lyons Consolidated Service Area was approximately 177 million gallons. The amount of water delivered to customers was approximately 130 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, WCW&SA water customers outside of the former Village of Lyons service areas 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. The former Village of Lyons customers were charged $5.50 per thousand gallons, $30.00 basic service charge and $15.00 for the Town Capital and O&M charge. This rate would result in an annual water charge of $455.00 for a customer using 50,000 gallons per year, an average use for a family of three.

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, lead and copper, volatile organic compounds, total trihalomethanes, 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. 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, or log on to EPA's Drinking Water Website **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 & Sewer Authority is required to collect and analyze six (6) total coliform samples from various points within the Authority's Arcadia-Lyons Consolidated Service Area distribution system per month. All samples proved to be negative so no violation occurred.

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

Contaminant	**Units**	**Violation Yes/No**	**MCLG**	**MCL**	**Date of Sample**	**Village of Newark Results**	**WCWSA**	**Likely Source**
Barium	ppm	No	2	2	2023	.026	NS	Discharge of drilling wastes, or metal refineries; Erosion of natural deposits
Nickel	ppm	No	N/A	N/A	2023	.0017	NS	Nickel occurs naturally in soils, ground water and surface waters
Nitrate	ppm	No	10	10	2023	.24	NS	Erosion of natural deposits
Chromium	ppm	No	.1 (EPA)	.1 (EPA)	2023	ND	NS	Discharge from steel and pulp mills; Erosion of natural deposits
1, 4-Dioxane	Ppb	No	1	1	2/8/23	ND	NS	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Gross Alpha	pCi/l	No	N/A	15	9/19/23	ND	NS	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation.
Gross Beta	pCi/l	No	N/A	50	9/19/23	ND	NS	Decay of natural and manmade deposits of certain minerals that are radioactive and may emit a form of radiation known as photons and beta radiation.
Radium – 226 *footnote 3	pCi/l	No	5	5	2023	ND	NS	Erosion of natural deposits
Radium – 228 *footnote 3	pCi/l	No	5	5	2023	ND	NS	Erosion of natural deposits
Uranium	ug/l	No	30	30	2023	ND	NS	Erosion of natural deposits
Fluoride	mg/l	No	N/A	2.2	2023	.61	NS	Water additive that promotes strong teeth.
Turbidity *footnote 4	NTU	No	N/A	TT=<5 NTU	3/18/23	.35	N/A	Soil runoff
Turbidity *footnote 4	NTU	No	N/A	TT=95% of samples <1.0 NTU		99.9%	N/A	Soil runoff
Distribution Turbidity *	NTU	No	N/A	MCL=5 NTU	10/5/23	.76	N/A	Soil Runoff
Total Trihalomethanes Stage 2 DBP Results	ug/l	No	N/A	80	2023	67 (38-60)	80.75 (41-99)	Disinfection Byproducts
HAA5 Stage 2 DBP Results	ug/l	No	N/A	60	2023	29 (21-32)	29.3 (19-33)	By-Product of drinking water chlorination

Copper *footnote 1	ug/l	No	1300	1300	2021	700 (14-910)	700 (14-910)	Corrosion of household plumbing systems; erosion of natural deposit leaching from wood preservatives
Lead *footnote 2	ug/l	No	0	15	2021	1.4 (ND-2.1)	1.4 (ND-2.1)	Corrosion of household plumbing systems; erosion of natural deposits

***Please Note: The Village of Newark has been required by NYS Department of Health to use an additive as a corrective action due to the copper levels being above the "action level" in 2011. It was determined that they use an addition of Orthophosphate sequestering agent to their finished water to reach the best levels. This addition was started in September of 2013. The results in 2018 showed that copper levels are reduced and are under EPA/NYS action limits. Due to these results Department of Health has reduced the sampling frequency for Lead and Copper sampling to every 3 years.

*__footnote 1__ - These levels represent the 90th percentile of the 30 sites tested. No sites exceeded the Action Levels in 2021 for the allowable level for Copper.

*__footnote 2__ - These levels represent the 90th percentile of the 30 sites tested. One site exceeded the Action Levels in 2021 for Lead.

*__footnote 3__ – The State considers 50 pCi/L to be the level of concern for beta particles.

*__footnote 4__ – This level represents the highest Locational running annual average calculated quarterly from data collected.

* Distribution Turbidity is a measure of cloudiness of the water found in the distribution system. The Village of Newark monitors it because it is a good indicator of water quality. High Turbidity can hinder the effectiveness of disinfectants. The highest monthly distribution turbidity measurement during the year, (.76 NTU), occurred in October 2023. This is below the State's maximum contaminant level (5 NTU).

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.

Not Sampled (NS): The supplier did not sample this contaminant.

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 of liquid (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.

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.

WHAT DOES THIS INFORMATION MEAN?
As you can see by the above table, limited portions of our system did have violations. Required water quality tests conducted quarterly indicated the presence of total trihalomethanes (TTHM) at 81 micrograms per liter (ug/L) in the 2nd quarter of 2023 which is above the maximum contamination 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. The violation affected portions of the Towns of Lyons, Arcadia and Palmyra and appropriate notice was provided to the residents in the affected area each quarter as required.

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 chorine, 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 worked closely in conjunction with the Village of Newark, the New York State Health Department and our Engineering Consultants to modify the re-chlorination, flushing and monitoring programs within the affected area to reduce the THM levels below the established maximum contaminant level. At this this time no additional precautions by customers/residents are necessary.

There was a loss of pressure to the system that occurred in May 2023 due to a rupture of a watermain on Layton Street in the Town of Lyons. When water mains lose pressure, it increases the chance that untreated water and harmful microbes can enter your water. WCWSA issued a “Boil Water Notice” via hand delivered notice to those customers in the affected area on May 17th, 2023. Repairs were completed and the system was flushed. Monitoring of chlorine residuals were completed until the supply was demonstrated to be safe, and the Boil Water Notice was lifted on May 20, 2023.

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 system is one of the many New York water utilities providing 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 the Village of Newark monitors fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l at an optimal range from 0.7 to 1.2 mg/l, (parts per million) EPA requirement. During 2023 monitoring showed that fluoride levels in your water system were within 0.2 mg/l of the target level for

98% of the time. None of the monitoring results showed fluoride at levels that approach 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 firefighting 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 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 water off while shaving and/or 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 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 and 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.
- Take showers instead of baths.
- 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 watermains, maintenance and painting of fire hydrants, monitoring the cross-connection back flow prevention program with three certified backflow testers, exercising of main line and gate valves throughout the system, and continuation of the residential water meter replacement program within the Authority's service area. An automatic flushing program was also continued to enhance water quality in some areas of the system.

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.