

**ANNUAL DRINKING WATER QUALITY REPORT
FOR 2022**

VILLAGE OF ARCADE

17 CHURCH STREET
ARCADE, NEW YORK

(Public Water Supply ID# NY 6000608)

And

ARCADE VALLEY ESTATES

(Public Water Supply ID# NY 6030013)

INTRODUCTION

To comply with State and Federal regulations, the Village of Arcade 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 this year.

This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains and how it compares to State standards. If you have any questions about this report or your drinking water, please contact Andrew Bartz, Superintendent of Public Works at 585-492-1111 x113. If you want to learn more about the operation of the water system, please attend any of the regularly scheduled Village of Arcade Board of Trustee meetings held the first and third Tuesdays of every month.

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 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 EPA prescribe regulations that 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

Our water source is two springs located in Sandusky and three wells, one on Mutton Hollow Road in Sandusky, one on Sullivan Avenue in the Village of Arcade and one on Church Street in the Village of Arcade. The Sandusky well can produce about 300 gpm, the Sullivan well 450 gpm and the Church Street Well about 350 gpm. During certain times of the year, the springs can produce more than our needs, over 550 gpm. During the dry months, they will produce as low as 175 gpm. The water is chlorinated and fluoridated prior to distribution.

The Village of Arcade water system serves about 2,330 people in the Village through 800 connections and 300 people from service connections outside the Village through 101 connections.

The Arcade Valley Estate system serves about 450 people through 250 connections.

The NYS DOH has completed a source water assessment for our water system, based on available information. Possible and actual threats to the drinking waters sources were evaluated. The source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential contamination of the source water. It does not mean that the water delivered to consumers is, or will become contaminated. See section "ARE CONTAMINANTS IN OUR DRINKING WATER?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future. As was mentioned before, our water is derived from two springs and three wells. The source water assessment has rated the susceptibility to contamination as Medium-High from protozoa, enteric bacteria, enteric viruses, halogenated solvents, petroleum products, herbicides/pesticides, other industrial organics, metals, nitrates, and cations/anions (salts, sulfate). The ratings are due to its proximity to agricultural activities, SPDES Permitted Facilities and Hazardous Waste Sites and specific aquifer characteristics. While the assessment rates our source as being susceptible to enteric bacteria, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: inorganic compounds, nitrate, nitrite, metals (including lead and copper), haloacetic acids, total trihalomethanes, volatile organic compounds, radiological and synthetic organic compounds. The table presented below 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 the Wyoming County Health Department at 585-786-8894.

<u>CONTAMINANT</u>	<u>VI</u> <u>O</u>	<u>SAMPLE</u> <u>DATE</u>	<u>SPRINGS</u>	<u>SULLIVAN</u> <u>WELL</u>	<u>CHURCH</u> <u>ST WELL</u>	<u>MUTTON</u> <u>HOLLOW WELL</u> <u>HOUSE</u>	<u>MCLG</u> <u>mg/l)</u>	<u>MCL</u> <u>AL</u>
Avg. Chlorine Res	N	Daily	0.84 mg/l	0.75 mg/l	0.62 mg/l		NA	MRDL=4.0
NITRATE	N	10/20/22	3.11 mg/l	2.15 mg/l	1.91 mg/l	1.94 mg/l	10 mg/l	MCL=10 mg/l
BARIUM	N	7/19/2021	0.07 mg/l	0.214 mg/l	0.088 mg/l		2 mg/l	MCL=2 mg/l
COPPER *	N	9/15/21	See notes				1.3 mg/l	AL=1.3 mg/l
LEAD **	N	9/15/21	See notes				0	AL=15 ug/l
SODIUM	N	10/20/22	13.0 mg/l	29.2 mg/l	25.2 mg/l	14.3 mg/l	NA	SEE NOTE
FLUORIDE	N	avg.	0.63 mg/l	.60 mg/l	0.55 mg/l		NA	MCL=2.2 mg/l
T.Trihalomethanes	N	8/02/22			9.14 ug/l	Composite	NA	80 ug/l
Gross Alpha	N	05/09/16	ND	ND	ND		0	15 pCi/l
Gross Beta	N	05/09/16	ND	ND	ND		0	50***
Radium 228	N	05/09/16	ND	ND	ND		0	5 pCi/l
Arsenic	N	7/19/2021	ND	ND	2.2 ug/l	ND	NA	MCL=10.0 ug/l
Chlorine Range	N		0.73-.93 mg/l	0.64-0.82 mg/l	0.54-0.76 mg/l		NA	MCL=4.0 mg/l
Fluoride Range	N		0.50-0.77 mg/l	0.49-0.77 mg/l	0.54-0.76 mg/l		NA	MCL=2.2 mg/l

ARCADE VALLEY ONLY

<u>CONTAMINANT</u>	<u>VIOLATION</u>	<u>SAMPLE DATE</u>	<u>VALUE</u>	<u>RANGE</u>
Avg. Chlorine Res	N	Daily	0.2 mg/l avg.	0.2-0.3
TOTAL TRIHALOMETHANES	N	08/2020	6.1 ug/L	

IN 2022, ABOUT 36 COLIFORM TESTS WERE PERFORMED IN THE VILLAGE AND 12 IN ARCADE VALLEY ESTATES. ALL TESTS WERE NEGATIVE.

Definitions:

Violation (Vio): Did the detected amounts exceed the MCL

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.

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow. The table shows that we had an MCL violation for odor.

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

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).

picoCurries per Liter (pCi/L): A unit of measure of radioactivity. The level of concern for beta particles is 50 pCi/L

CONTAMINANT	LIKELY SOURCE OF CONTAMINATION
NITRATE	Runoff from fertilizer use; leaching from septic tanks; erosion of natural deposits
ARSENIC	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
BARIUM	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
COPPER *	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
LEAD **	Corrosion of household plumbing; erosion of natural deposits
SODIUM	Sampled from source (not distribution system). Naturally occurring; road salt. Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
CHLORINE RESIDUAL	Water additive used to control microbes
IRON	Iron has no health effects. At 1,000 ug/l a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with characteristic rust color. Staining can result at levels of 50 ug/l, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/l represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multivitamins may contain 3,000 or 4,000 micrograms of iron per capsule.
CHLORIDE	Naturally occurring or indicative of road salt contamination. Degradation of other chemicals leaching from waste sites, spills, etc.
FLUORIDE	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
SULFATE	Naturally occurring
GROSS ALPHA	Erosion of natural deposits
GROSS BETA	Decay of natural deposits and man-made emissions.
ZINC	Naturally occurring; Mining waste.
HAA5	By-product of drinking water disinfection needed to kill harmful organisms
TTHM	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water of organic matter

Notes:

The level presented represents the 90th percentile of the 10 sites tested. 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.

* The 90th percentile level for copper was 0.11 mg/l. The range of values was 0.01 to 0.12 mg/l. None of the samples from ten sites exceeded the action level of 1.3 mg/l

** The 90th percentile level for lead was 4.1 ug/l. The range of values was less than 1.0 to 4.2 ug/l. None of the samples from ten sites exceeded the action level of 15 ug/l.

*** The State considers 50 pCi/l to be the level of concern for beta particles

WHAT DOES THIS INFORMATION MEAN?

As you can see by our table, our system had no violations. We learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

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 Village of Arcade 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 Village Office at 585-492-1111*. 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>.

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. 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 monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target. During 2022, monitoring showed that fluoride levels in your water were within 0.6 mg/l of the target level 80% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded all 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 some 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:

- 1 Saving water saves energy and some of the costs associated with both of these necessities of life;
- 2 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
- 3 Saving water lessens the strain on the water system during a dry spell or droughts, 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. It is not hard to conserve water. Conservation tips include:

- 1 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
- 2 Turn off the tap when brushing your teeth.
- 3 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.
- 4 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.
- 5 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.

CLOSING

In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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. If you see any suspicious activity please report it immediately to the Village Office at 585-492-1111.