

Annual Drinking Water Quality Report for 2021
Village of Cassadaga
22 Mill Street, PO Box 286
Cassadaga, NY 14718
Public Water Supply ID# NY 0600356

INTRODUCTION

To comply with State regulations, the Village of Cassadaga annually issues 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, we detected high levels of disinfection byproducts during the third quarter. More information on this can be found in the “What does this information mean?” section of this report.

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 concerns about your drinking water, please contact Sam Alaimo, Water Operator, at 716-595-3844 or the Village Offices at 716-595-3007. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village Board Meetings. The meetings are held in the Community Room on the 2ND and 4TH Wednesday of every month at 7:00 PM.

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 EPA prescribe regulations which 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 system serves approximately 635 people through 365 service connections, along with the Lily Dale Assembly and the Cassadaga Job Corps Center. Our water source consists of three groundwater wells – well #1, well #4 and well #5. Well #5, the newest well, is treated by aeration to remove methane. Blended orthophosphate (Carus 8100) is added to the water from well #4 and #5 to reduce discoloration (brown water) caused by naturally occurring iron and manganese. Finally, chlorine is added to our water before it is pumped into the distribution system.

The NYS DOH has completed a source water assessment for Wells #1 and #4 based on available information. Possible and actual threats to this drinking water source were evaluated. The state 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 for contamination of the source water, it does not mean that the water delivered to consumers is or will become contaminated. While some inorganic contaminants were detected in our 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk. See section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected.

The source water assessment has rated our wells 1 and 4 as having a medium susceptibility to microbials, nitrates, industrial solvents, and other industrial contaminants. There has not been an assessment done on well #5. These ratings are due primarily to the close proximity of permitted discharge facilities (septic systems that

discharge wastewater into the environment and are regulated by the state and/or federal government) to the wells and the associated activity in the assessment area. The wells draw from a confined aquifer. A copy of the assessment can be obtained by contacting us as noted above.

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, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, 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 Chautauqua County Department of Health and Human Services at 716-753-4481.

TABLE OF DETECTED CONTAMINANTS							
Contaminant	Violation	Date of Sample	Level Detected	Unit Measurement	Regulatory Limit MCL/AL	MCLG	Likely Source of Contamination
INORGANIC CONTAMINANTS							
Barium (Well #1)	No	4/19/21	0.054	mg/l	2(MCL)	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Barium (Well #4)	No	4/19/21	0.175	mg/l	2(MCL)	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Barium (Well #5)	No	4/19/21	1.04	mg/l	2(MCL)	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Manganese (Well #1)	No	8/18/20	20	ug/l	300 (MCL)	N/A	Naturally occurring. Can be indicative of landfill contamination.
Manganese (Well #4)	No	8/18/20	11	ug/l	300 (MCL)	N/A	Naturally occurring. Can be indicative of landfill contamination
Iron (Well #5)	No	3/31/21	230	ug/l	300(MCL)	N/A	Naturally occurring.
Manganese (Well #5)	No	3/31/21	15	ug/l	300(MCL)	N/A	Naturally occurring. Can be indicative of landfill contamination
Nitrate (Well #1)	No	3/31/21	1.2	mg/l	10.0(MCL)	0	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion of natural deposits.
Nitrate (Well #4)	No	3/31/21	1.4	mg/l	10.0(MCL)	0	Runoff from fertilizer use; Leaching from septic tanks, sewage. Erosion of natural deposits.
Fluoride (Well #5)	No	4/19/21	0.3	mg/l	2.2(MCL)	N/A	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Mercury (Well #5)	No	3/20/19	0.09	ug/l	2.0 (MCL)	2	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills and cropland.
Nickel (Well #5)	No	3/20/19	0.3	ug/l	N/A	N/A	Nickel enters groundwater and surface water by dissolution of rocks and soils, from atmospheric fallout, from biological decays and from waste disposal.
Copper(1)	No	8/17/20 – 8/18/20	0.224 Range: 0.017- 0.312	mg/l	1.3(AL)	1.3	Corrosion of household plumbing systems, Erosion of natural deposits;
Lead(2)	No	8/17/20 - 8/18/20	1.2 Range: ND-3.2	ug/l	15(AL)	0	Corrosion of household plumbing systems; Erosion of natural deposits.
VOLATILE ORGANIC CONTAMINANTS							
1,1,1-Trichloroethane (Well #1)	No	4/19/21	0.7	ug/l	5.0(MCL)	N/A	Discharge from metal degreasing sites and other factories

STAGE 2 DISINFECTION BYPRODUCTS (Bard Rd)

Haloacetic Acids	No	Quarterly 2021	Avg.= 2.68 Range: ND-4.9	ug/l	60(MCL)	N/A	By-products of drinking water chlorination.
Total Trihalomethanes	No	Quarterly 2021	Avg.= 35.13 Range: 15.9-46.0	ug/l	80(MCL)	N/A	By-products of drinking water chlorination. TTHM's are formed when source water contains large amounts of organic matter.

STAGE 2 DISINFECTION BYPRODUCTS (Ames Common)

Haloacetic Acids	No	Quarterly 2021	Avg.= 6.83 Range: 3.0-7.4	ug/l	60(MCL)	N/A	By-products of drinking water chlorination.
Total Trihalomethanes	No	Quarterly 2021	Avg.= 34.6 Range: 17.1-30.0	ug/l	80(MCL)	N/A	By-products of drinking water chlorination. TTHM's are formed when source water contains large amounts of organic matter.

RADIOLOGICALS

Radium 228 Well #5	No	2/8/17 6/7/17	0.939 Range: 0.507-1.37	Pci/L	5(MCL)	N/A	Erosion of natural deposits.
Radium 226 Well #5	No	2/8/17 6/7/17	0.439 Range: 0.139-0.739	Pci/L	5(MCL)	N/A	Erosion of natural deposits.
Gross Alpha Well #5	No	2/8/17 6/7/17	1.27 Range: 1.04-1.50	Pci/L	15(MCL)	0	Erosion of natural deposits.
Gross Beta(3) Well #5	No	2/8/17 6/7/17	1.35 Range: 0.619-2.08	Pci/L	8(MCL)	0	Decay of natural deposits and man-made emissions.
Uranium	No	2/8/17 6/7/17	0.091 Range: 0.030-0.152	ug/l	30	0	Erosion of natural deposits

DISINFECTANTS

Chlorine Residual Entry Point #1	No	Daily (2021)	Avg.= 1.24 Range: 0.38 - 2.12	mg/l	4(MCL)	N/A	Water additive used to control microbes
Chlorine Residual Entry Point #4	No	Daily (2021)	Avg.= 1.36 Range: 0.28 - 2.19	mg/l	4(MCL)	N/A	Water additive used to control microbes
Chlorine Residual Entry Point #5	No	Daily (2021)	Avg.= 1.23 Range: 0.15 - 3.82	mg/l	4(MCL)	N/A	Water additive used to control microbes

Notes:

1- 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. In this case 10 samples were collected at your water systems and the 90th percentile value was calculated to be the second highest result value and that result was 0.224 mg/l. The action level for Copper was not exceeded at any of the sites tested.

2- The level presented represents the 90th percentile of the 10 sites tested within the two water districts. The 90th percentile value for lead was 1.2 ug/l. The action level for lead was not exceeded at any of the sites tested.

3- The NYSDOH considers 50 pCi/l to be the level of concern for beta particles.

Definitions:

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 that is 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.

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).

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

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations in 2021. However, during routine monitoring for disinfection byproducts in 2020, we detected elevated levels of total trihalomethanes. These levels triggered quarterly monitoring of disinfection byproducts in 2021. Samples collected quarterly in 2021 indicate that the levels of disinfection byproducts in our distribution system are being reduced. We will continue sampling for disinfection byproducts in 2022.

During state assisted sampling in 2018, we detected the presence of 1,1,1-Trichloroethane in well #1. A resample of well #1 in October 2018 again resulted in a detection of the contaminant. Therefore, sampling for this contaminant was performed quarterly in 2019 and reduced to yearly in 2020. In 2021, we continue to detect 1,1,1-Trichloroethane in well #1, however all detections have been below the MCL. The New York State Health Department has provided us the specific health effects as follows:

Some people who drink water containing 1,1,1-Trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system. Please note that the levels of 1,1,1-Trichloroethane detected in the Village of Cassadaga water system have not been in excess of the MCL.

We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. Lead and copper were detected within the system but of the 10 samples collected none were found exceeding the action levels. We are however required to present the following information on Lead in drinking water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. 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. The Village of Cassadaga is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the **Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>**.

The NYSDOH has a free lead testing program – for more information go to:

https://www.health.ny.gov/environmental/water/drinking/lead/free_lead_testing_pilot_program

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2021, our system was in compliance with applicable State drinking water operating and reporting requirements, but not monitoring requirements. We were issued a monitoring violation by the Chautauqua County Health Department for failing to monitor for Stage 2 Disinfection Byproducts during the third quarter, therefore, we cannot be sure of the quality of your drinking water for these contaminants during that time. However, results from routine

testing during the first, second, and fourth quarters indicated that their levels of disinfection byproducts in our distribution system were being reduced. We will continue to monitor for these contaminants in 2022 and will notify our consumers if there are any issues.

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 FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

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 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.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. Sam Alaimo has his Class C Water Operator license and oversees our water system and Evan Magierski is working towards his license.

The rate structure will continue with a \$ 95.00 debt service per dwelling unit and a water rate usage of \$ 5.25 per thousand gallons beginning June 1, 2022 and reflect on your December 1, 2022 water bill. Partial payments will be accepted by the Village Clerk with total to be paid within 60 days; henceforth after that date past due notice will be issued. Water bills are a utility, not a tax. Please pay when billed so bills do not have to go on next year taxes or possible shut off notices in April.