

*Annual Drinking Water Quality Report for 2020*  
**Village of Clayton**  
**PO Box 250, Clayton, NY 13624**  
**(Public Water Supply ID#2202335)**

## **INTRODUCTION**

To comply with State regulations, **the Village of Clayton**, 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 has never violated a maximum contaminant level or any other water quality statement. 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 concerning your drinking water, please contact **Mr. Thomas Haynes, Development Authority of the North Country, Water Quality Supervisor, at (315) 686-2717**. 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. **Meetings are held on the 2<sup>nd</sup> and 4<sup>th</sup> Monday of each month at 5:30 pm at the Village of Clayton Municipal Complex on Mary Street.**

## **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 source is surface water drawn from the St. Lawrence River. The intake is located at the end of Bartlet Point Road and extends 460 feet into the main shipping channel at a depth of 50 feet. During 2020, our system did not experience any restriction of our water source. The water is conveyed to the Water Treatment Plant by three low-lift pumps where it is disinfected by the injection of gaseous chlorine prior to filtration by two Diatomaceous Earth Filters. After the proper amount of detention time the water is pumped into the distribution system to our customers. Any water not consumed by our customers is stored in a 1,000,000 gallon storage tower.

## **SOURCE WATER ASSESSMENT SUMMARY**

The Great Lakes watershed is exceptionally large and too big for a detailed evaluation in the Source Water Assessment Program (SWAP). General drinking water concerns for public water supplies which use these sources include: storm generated turbidity, wastewater, toxic sediments, shipping related spills, and problems associated with exotic species (e.g. zebra mussels- intake clogging and taste and odor problems). The summary below is based on the analysis of the contaminant inventory compiled for the drainage area deemed most likely to impact drinking water quality at the PWS intake.

The assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in medium potential for microbial and Disinfection By-Product (DBP) precursors contamination. There is also a moderate density of sanitary wastewater discharges which results in elevated susceptibility for nearly all contaminant categories. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources which include: erosion of natural deposits. A copy of the assessment can be obtained by contacting the supplier of water.

## **FACTS AND FIGURES**

Our water system serves a population of 2,079 through 1,019 metered service connections. The total amount of water produced in 2020 was 77.46 million gallons. The daily average of water treated and pumped into the distribution system was 209,444 gallons per day. Our highest single day was 401,000 gallons. The amount of water delivered to customers was 51.40 million gallons. This leaves an unaccounted for total of 26.05 million gallons. This water was used to flush mains, back wash filters, fight fires and leakage which accounts for the 33.6% of the total amount produced. In 2020, water customers inside the Village and Bartlett Point Water District were charged a fixed rate per equivalent dwelling unit (EDU) of \$315.00 per year plus a variable consumption of \$4.00 per 1,000 gallons. While consumers outside of the Village were charged a fixed rate per EDU of \$393.75 per year plus a variable consumption of \$5.00 per 1,000 gallons.

## **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 (TTHM), haloacetic acids (HAA5), chlorine 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 NYSDOH Watertown-District Health Department at (315)785-2277.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Nitrate as N	No	7/16/2020	0.24	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Turbidity <sup>1</sup>	No	Daily 2020	(0.15/0.56) (0.07-0.56)	NTU	N/A	TT=1.0	Soil Runoff.
Distribution Turbidity <sup>2</sup>	No	Week Days 2020	(0.18/0.68) (0.09-0.68)	NTU	N/A	TT=1.0	Soil Runoff.
Barium	No	11/2019	21.9	µg/L	2000	2000	Erosion of Natural deposits.
Copper	No	8/25/2020	0.612 <sup>3</sup>	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead	No	8/11/2020	2.60 <sup>4</sup>	µg/L	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Sodium	No	9/2007	13	mg/L	N/A	(see health effects) <sup>5</sup>	Naturally occurring; Road salt; Water softeners; Animal waste.
Disinfection By-Products							
Total Trihalomethanes (TTHM)	No	Quarterly (Avg.) 2020	46.5 <sup>6</sup>	µg/L	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids (HAA5)	No	Quarterly (Avg.) 2020	25.3 <sup>7</sup>	µg/L	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms.

<sup>1</sup> Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurements for the year occurred on 3/6/2020 (0.56 NTU). State regulation requires that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.5 NTU.

<sup>2</sup> Turbidity is a measure of the cloudiness of the water. Our highest single turbidity measurements for the year occurred on 3/13/2020 (0.68 NTU).

<sup>3</sup> The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 10 samples were collected within your water system and the 90<sup>th</sup> percentile value of the samples was 0.612 mg/L. The action level for copper was not exceeded in the 10 sites sampled.

<sup>4</sup> The level presented represents the 90<sup>th</sup> percentile of the 10 samples collected within your water system and the 90<sup>th</sup> percentile value of the samples was 2.60 µg/L. The action level for lead was not exceeded in the 10 sites sampled.

<sup>5</sup> 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.

<sup>6</sup> This level represents the annual quarterly average calculated from data collected each quarter of the 2020 calendar year.

<sup>7</sup> This level represents the annual quarterly average calculated from data collected each quarter of the 2020 calendar year.

Chlorine Residual	No	Daily 2020	(2.0/2.4) (1.8-2.4)	mg/L	N/A	4.0	By-product of drinking water chlorination needed to kill harmful organisms.
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### 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 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.

**Level 1 Assessment:** A Level 1 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is an evaluation of the water system to identify potential problems and determine, if possible, why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**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 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.

### WHAT DOES THIS INFORMATION MEAN?

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

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

During 2020, 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).

## **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 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:

- ◆ 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 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, then check the meter after 15 minutes. If it moved, you have a leak.

## **SYSTEM IMPROVEMENTS**

In 2020, a water system improvement capital project was completed. This improvement included upgrades to the existing low lift pumping station and water treatment plant (WTP), 1-million gallon (MG) standpipe, and distribution system. Improvements to the low lift pump station included three new low lift pumps to deliver water from the intake to the WTP and a propane generator for electrical back up during power outages. WTP upgrades incorporated in the capital project were: three high lift pumps, for supplying the distribution system with finished water; new chlorination system for disinfection; two new diatomaceous earth (DE) water filters to enhance the quality of finished water; and control works which allows the system flexibility of how it can be operated to provide the highest quality of water. The 1-MG standpipe received a mixer in the upgrade, this ensures all the water is evenly distributed, reduces thermal stratification, minimizes disinfection loss, and decreases production of disinfection by-products. The distribution system improvements included replacement of some water mains, valves, and fire hydrants. The improvements are part of the Village of Clayton’s continuing effort to provide high quality water and maintain a safe and dependable water supply.

In 2021, the Village intends to identify and replace problem sections of water mains within the distribution system that require frequent repairs and are contributing to the high water loss the Village is experiencing. In addition, the 2021 budget includes upgrading all water meters to cellular read technology. This improvement will allow Village users to track water usage daily and also reduce water loss.

## **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 at (315) 686-5552.

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### ***WATER/SEWER BILLING SCHEDULE***

Statements are mailed to the property owner three (3) times a year:  
(After Hours Drop Box Available at WEST Side Entrance of Municipal Building)

**MARCH 1** (covering October 15 through February 15) – **PAYMENT DUE APRIL 5<sup>th</sup>**

**JULY 1** (covering February 15 through June 15) – **PAYMENT DUE AUGUST 5<sup>th</sup>**  
**NOVEMBER 1** (covering June 15 through October 15) – **PAYMENT DUE DECEMBER 5<sup>th</sup>**

A 10% penalty is added to payments received or postmarked after the Due Date.  
Accounts not paid in a timely fashion are subject to termination.  
*FAILURE TO RECEIVE BILL DOES NOT WAIVE PENALTY.*

For further information, please contact the Village Clerk's Office (315-686-5552)

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**FOR MORE INFORMATION ON YOUR LOCAL GOVERNMENT  
VISIT OUR WEBSITE**

<http://www.villageofclayton.com>

**WE ALWAYS WELCOME YOUR SUGGESTIONS  
E-MAIL us at [info@villageofclayton.org](mailto:info@villageofclayton.org)**