

Annual Water Quality Report for 2020

City of Johnstown Water Department

27-31 East Main Street Johnstown, NY 12095

City of Johnstown
Fulton Co Water District #1
Aspen Hills Water District

Public Water Supply Identification Number NY1700019
Public Water Supply Identification Number NY1730066
Public Water Supply Identification Number NY1730083

INTRODUCTION

To comply with State regulations, the City of Johnstown, 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 drinking water met all State drinking water health standards. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our constant goal is, and always has been, to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. If you have any questions concerning this report or concerning your drinking water please contact: Ms. Susan Miller, Clerk of the Water Board, City of Johnstown, 27 East Main Street, Johnstown, NY 12095; Telephone (518) 736-4027. We want our valued customers to be informed about their drinking water. If you want to learn more, please attend any of our regularly scheduled Water Board meetings. They are held on the 2nd Monday of each month at 6:00 PM, in the conference room of the water department at 27 East Main Street, Telephone number (518) 736-4027; TDD# 1-800-662-1220.

WHERE DOES OUR WATER COME FROM?

The City of Johnstown operates two slow sand filtration plants. The plants are located at Christman and Cork Center. Our source of water is located west of the City, in the Town of Johnstown and is comprised of three reservoirs: 1) Christman Reservoir with a 10,000,000-gallon capacity; 2) Cork Center Reservoir with a 140,000,000-gallon capacity; 3) Larrabee Reservoir with a 40,000,000-gallon capacity. The three reservoirs have a combined storage capacity of 200,000,000 gallons surrounded by a 2,000-acre watershed. From the reservoirs the water flows by gravity feed to each of the slow sand filtration plants. The combined filtration capacity, for both plants, is 4,500,000 gallons of water per day. The water is filtered through sand to remove any small particles and then disinfected with chlorine to protect against contamination from harmful bacteria and other organisms. We have a 90,000-gallon clearwell at the Christman Treatment Plant and a 570,000-gallon clearwell at the Cork Center Treatment Plant. The clearwells provide storage capacity and additional contact time for disinfection. Water flows from the clearwells to a 2,500,000-gallon tank at Maylanders in the northern part of the city. This allows us to store water and to provide adequate fire protection.

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 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.

FACTS AND FIGURES

The City of Johnstown provides water through 3,500 service connections to a population of approximately 10,931 people and to the residents of the Aspen Hills Water District. Our average daily demand is 1,741,052 gallons of water. Our single highest day was 2,308,300 gallons. In 2020 we treated 635,484,000 gallons of water between the Christman Plant and Cork Plants. A total of 203,403,109 gallons of water was billed to residential customers. A total of 267,191,771 gallons of water was billed to industrial customers. Un-billed water (municipal buildings, parks, downtown flower watering) accounted for 3,500,000 gallons being used. Water for fire protection, hydrant flushing and leaks is estimated at 70,000,000 gallons being used. A total of 91,389,120 gallons of water (or 14%) was lost in the transmission and distribution system.

The City bills each water customer semi-annually based on water meter usage. Large industrial users are billed monthly based on water meter usage. The average annual residential bill is \$247.18 and the average annual industrial bill is \$74,554.65.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the City of Johnstown routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, and synthetic organic contaminants. In addition, we test 10 samples for coliform bacteria each month and chlorine, turbidity and pH once a day. The tables presented on page 2 depict which contaminants were detected in your drinking water. The state allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old. For a listing of the parameters we analyzed that were not detected along with the frequency of testing for compliance with the NYS Sanitary Code, see Appendix A.

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 pose 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 New York State Department of Health, Herkimer District Office at (315) 866-6879.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table on page 4, our system had 1 violation for the Trihalomethanes in the Aspen Hills Water District and Fulton Co. WD#1 exceeding the MCL and are required to provide the following information:

Trihalomethanes

Some studies suggest that people who drink chlorinated water (which contains 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 for cancer and other health effects are due to trihalomethanes or some other factor. The individual trihalomethanes chloroform,

bromodichloromethane and dibromochloromethane cause cancer in laboratory animals exposed to high levels over their lifetimes. Chloroform, bromodichloromethane and dibromochloromethane are also known to cause effects in laboratory animals after high levels of exposure, primarily on the liver, kidney, nervous system and on their ability to bear healthy offspring. Chemicals that cause adverse health effects in 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.

New York State has adopted the first in the nation drinking water standard for 1,4-Dioxane along with one of the lowest maximum contaminant levels for PFOA and PFOS. Public Water Supplies in NYS are required to test for PFOA, PFOS and 1,4-Dioxane. PFOA and PFOS have Maximum Contaminant Levels (MCL) of 10 parts per trillion each while 1,4-Dioxane has an MCL of 1.0 part per billion. The City of Johnstown Water Department has completed its 1st and 2nd quarter monitoring with no detects for PFOA, PFOS & 1,4-Dioxane.

We have learned through our monitoring and testing that some constituents have been detected; however, these compounds were detected below New York State requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

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 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 microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and ground water sources used for public drinking water; Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require that New York State Department of Health's Bureau of Public Water Supply Protection is responsible for ensuring that source water assessments are completed for all of New York's public water systems.

A source water assessment provides information on the potential contaminant threats to public drinking water sources:

- ◆ Each source water assessment will: determine where water used for public drinking water comes from (delineate the source areas)
- ◆ Inventory potential sources of contamination that may impact public drinking water sources
- ◆ Assess the likelihood of a source water area becoming potential contaminated

A SWAP summary for our water supply has not been completed by NYSDOH at this time. It will be presented in next year's report.

INFORMATION ON LEAD

If present, elevated levels of 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 City of Johnstown 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 or at <http://www.epa.gov/safewater/lead>

WATER CONSERVATION TIPS

The City of Johnstown encourages water conservation. There are a lot of things you can do to conserve water in your own home. Conservation tips include:

- ◆ Use water saving showerheads
- ◆ Repair all leaks in your plumbing system
- ◆ Water your lawn sparingly in the early morning or in the late evening
- ◆ Do only full loads of wash and dishes
- ◆ Wash your car with a bucket and hose with a nozzle
- ◆ Don't cut the lawn too short; longer grass saves water

CLOSING

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our customers. 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.

The City of Johnstown is an equal opportunity provider and employer. Discrimination is prohibited by Federal Law. Complaints of discrimination may be filed with USDA, Director, Office of Civil Rights Room 326-W, Whitten Building, 14th and Independence Ave., SW, Washington, DC 20250-9410.

CITY OF JOHNSTOWN TEST RESULTS Public Water Supply Identification Number NY1700019						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity ¹ (from 4/2/20 Cork Center)	N	0.483	NTU	N/A	TT=5 NTU	
		100				
Turbidity ¹ (from 11/2/20 Christman Filtration Plant)	N	0.231	NTU	N/A	TT= % samples <1.0	
		100%				
Inorganic Contaminants (Sample data from 1/24/20 unless otherwise noted Results in Bold are from Christman Plant those in plain type are from Cork, when only one value Values are the same at both plants)						
Barium	N	5.5-10.4		2000	2000	Naturally Occurring
Color	N	10-15		N/A	15	Presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter.
Chloride	N	7.53- 22	ppm	N/A	250	Naturally occurring or indicative of road salt contamination.
Copper (Johnstown samples from 9/7/20-10/9/20)	N	599 ² 16.1-1050	ppb	1300	1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron	N	15.5-23.7	ppb	N/A	300	Naturally occurring
Lead (Johnstown samples from 9/7/20-10/9/20)	N	3.3 ³ ND-0.291	ppb	0	15	Corrosion of household plumbing systems; erosion of natural deposits;
Nickel	N	0.8	ppb	N/A	N/A	Naturally Occurring
Odor	N	1-1	units	N/A	3	Natural sources
pH	N	7.5-7.71	units	N/A	6.5-8.5	
Sodium ⁴	N	3.53 – 10.4	ppm	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
Zinc	N	6.8-39.1	ppb	N/A	5000	Naturally Occurring
Stage 2 Disinfection Byproducts (Quarterly samples from (2/11/20, 5/12/20, 8/11/20 & 11/10/20)						
Stage 2 Haloacetic Acids (HAA5) (average) ⁵ Range of Values for HAA5 Fulton Co. Nursing Home	N	45.4 14.2-31.9	ppb	N/A	60	By-product of drinking water chlorination
Stage 2 Haloacetic Acids (HAA5) (average) ⁵ Range of Values for HAA5 King Cole Laundry	N	43.9 12.1-31.8				
Stage 2 Haloacetic Acids (HAA5) (average) ⁵ (Aspen Hills WD)	N	47.4 8.32-54.6	ppb	N/A		By-product of drinking water chlorination
Stage 2 Total Trihalomethanes (TTHM) (average) ⁵ Range of values for TTHM Fulton Co. Nursing Home	N	52.2 20.6-54.6	ppb	0	80	By-product of drinking water chlorination
Stage 2 Total Trihalomethanes (TTHM) (average) ⁵ Range of values for TTHM King Cole Laundry	N	51.6 21.1-55.4				
Stage 2 Total Trihalomethanes (TTHM) (average) ⁵ (Aspen Hills WD)	N	41.4 10.8-46.3	ppb	0	80	By-product of drinking water chlorination
Fulton Co. WD#1 (samples from 1/8/20, 4/8/20, 7/8/20 & 10/14/20)						
Stage 2 Haloacetic Acids (HAA5) ⁵	N	25.6 1.32-49.7	ppb	N/A	60	By-product of drinking water chlorination
Stage 2 Total Trihalomethanes (TTHM) ⁵	Y	83.6 54.9-124	ppb	0	80	By-product of drinking water chlorination
					MRDL	Used in the treatment and disinfection of drinking water
					4	

Raw Water E.coli Testing Round 2 LT2ESESWTR ⁸ (Biweekly for a total of 26 samples) 10/16/17 thru 9/17/18						
Cork Center Reservoir	N/A	10/2/17-9/17/18	36.5 ND-238	E.coli/100 ml	Average>100 E.coli/100ml	Human & animal fecal contamination
Christman Reservoir	N/A		42 ND-921			
FOOTNOTES- 1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest level detected. State regulations require that turbidity must always be less than or equal to 5.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 1.0 NTU. 2. The level presented represents the 90 th percentile of 22 test sites. The action level for copper was exceeded at none of the 22 sites tested. 3. The level presented represents the 90 th percentile of 22 test sites. The action level for lead was exceeded at one of the 22 sites tested. 4. Water containing more than 20 ppm should not be consumed by persons on severely restricted sodium diets. 5. The average is based on a Locational Running Annual Average (LRAA). The averages shown for Johnstown represent the highest LRAA for the 4 quarters in 2020. The highest HAA5 & TTHM LRAA for both sample sites was in the 1 st quarter of 2020. The LRAAs for Aspen Hills WD were the highest for the HAA5s and THMs in the 1 st quarter of 2020. The LRAA for Fulton Co. WD had the highest HAA5 and THM in the 1 st quarter of 2020. The THM MCL was also exceeded in the 1 st quarter of 2020. 6. Under the LT2 (Long Term Enhanced Surface Water Treatment Rule, small surface water or GUIDI systems could monitor for E. coli biweekly for 1 year instead of performing more costly Cryptosporidium/Giardia testing to determine treatment requirements for their water sources. An average E. coli concentration greater than 100/100 ml of sample would trigger Cryptosporidium and Giardia monitoring for 24 months. The averages from Cork and Christman were below the trigger level to require Cryptosporidium monitoring. <i>Non-Detects (ND)</i> - laboratory analysis indicates that the constituent is not present. <i>Parts per million (ppm) or Milligrams per liter (mg/l)</i> - one part per million corresponds to one minute in two years or a single penny in \$10,000. <i>Parts per billion (ppb) or Micrograms per liter</i> - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000. <i>Nephelometric Turbidity Unit (NTU)</i> - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. <i>90th Percentile Value</i> - The values reported for lead and copper represent the 90 th percentile. 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 th percentile is equal to or greater than 90% of the lead and copper values detected at your water system <i>Treatment Technique (TT)</i> -A treatment technique is a required process intended to reduce the level of a contaminant in drinking water. <i>Maximum Contaminant Level</i> - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. <i>Maximum Contaminant Level Goal</i> - The "Goal" (MCLG) is 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. <i>Maximum Residual Disinfectant Level (MRDL)</i> : 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. <i>Maximum Residual Disinfectant Level Goal (MRDLG)</i> : 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 <i>Locational Running Annual Average (LRAA)</i> - The LRAA is calculated by taking the average of the four most recent samples collected at each individual site. N/A-not applicable						

New York State Sanitary Code Compliance Monitoring Requirements- Compounds Analyzed that were Below Limits of Detection

CITY OF JOHNSTOWN TEST RESULTS					
Public Water Supply Identification Number NY1700019					
CONTAMINANT	MONITORING FREQUENCY		CONTAMINANT	CONTAMINANT	MONITORING FREQUENCY
Asbestos	Every 9 years Sample from 5/22/13		POC's (Volatile Organic Compounds)		
			Benzene	Trans-1,3-Dichloropropene	Monitoring requirement is one sample annually.
Antimony	Monitoring requirement is one sample annually Sample results from 1/24/20 NON-DETECT		Bromobenzene	Ethylbenzene	
Arsenic			Bromochloromethane	Hexachlorobutadiene	
			Bromomethane	Isopropylbenzene	
Beryllium			N-Butylbenzene	p-Isopropyltoluene	
Cadmium			sec-Butylbenzene	Methylene Chloride	
Chromium			Tert-Butylbenzene	n-Propylbenzene	
Cyanide			Carbon Tetrachloride	Styrene	
Mercury			Chlorobenzene	1,1,1,2-Tetrachloroethane	
			2-Chlorotoluene	1,1,2,2-Tetrachloroethane	
Selenium			4-Chlorotoluene	Tetrachloroethene	
Thalium			Dibromethane	Toluene	
Fluoride			1,2-Dichlorobenzene	1,2,3-Trichlorobenzene	
			1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	
			1,4-Dichlorobenzene	1,1,1-Trichloroethane	
			Dichlorodifluoromethane	1,1,2-Trichloroethane	
		1,1-Dichloroethane	Trichloroethene		
		1,2-Dichloroethane	Trichlorofluoromethane		
	Monitoring requirement is at State discretion Sample 1/24/20 NON-DETECT	1,1 Dichloroethene	1,2,3-Trichloropropane		
Manganese		cis-1,2 Dichloroethene	1,2,4-Trimethylbenzene		
Nitrate		Trans-1,2-Dichloroethene	1,3,5-Trimethylbenzene		
		1,2 Dichloropropane	m-Xylene		
Silver		1,3 Dichloropropane	o- Xylene		
Zinc		2,2 Dichloropropane	p-Xylene		
		1,1 Dichloropropene	Vinyl Chloride		
		Cis-1,3-Dichloropropene			