Annual Water Quality Report for 2016

City of Johnstown

27-31 East Main Street, Johnstown, NY 12095

Public Water Supply Identification Number NY1700019

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. Barbara Koehler, 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) Larabee 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 100,000 gallon clearwell at the Christman Treatment Plant and a 500,000 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 open reservoir at Maylender 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 3,400 service connections to a population of approximately 8,743 people. Our average daily demand is 1,695,000 gallons of water. Our highest single day was 2,101,000 gallons. In 2016 we treated 618,979,000 gallons of water between the Christman Plant and Cork Plant. A total of 514,769,500 gallons was billed to customers. As a result, a total of 186,546,049 gallons of water (or 15%) was lost in the transmission and distribution system. This can be attributed to water usage for fire protection, flushing and leaks.

The City bills each and every water customer semi-annually based on water meter usage. Large Industrial users are billed monthly based on water meter usage. The following rates apply to all customers every six months (or monthly if Industrial customer). A minimum bill of $55.60 is charged for the first 2,000 cubic feet. Rates are as follows: $2.78 per 100 cubic feet (748 gallons) for the first 200,000 cubic feet and $2.05 per 100 cubic feet for all water used after 200,000 cubic feet for the remaining six months. The annual charge per average resident user is $260.00.

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 no violations. 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 2016, 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*

CAPITAL IMPROVEMENTS

In 2016 we completed or started the following projects:

- Removed fuel tanks at both water treatment plants and switched to propane which is cleaner and cheaper
- In the process of working on main storage reservoir dam upgrade.
- Work on spillway

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 1/2/16 Cork Center)	N	0.269	NTU		TT=5 NTU	Soil runoff
Turbidity [1] (from 1/2/16 Christman)		0.269				
Turbidity	N	100%	NTU		TT= % samples < 1.0	
Inorganic Contaminants (Sample data from 2/9/16 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	**5.4**-7	ppb	2000	2000	Erosion of natural deposits.
Chloride	N	**5.6** – 14.5	ppm	N/A	250	Geology; Naturally occurring
Copper (sample data from 8/12/14) Range of copper concentration	N	700[2] 30-930	ppb	1300	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron	N	**7**-12	ppb	N/A	300	Geology; Naturally occurring
Lead (sample data from 8/12/14) Range of lead concentration	N	2[3] ND-3	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
pH	N	**7.7** – 8.0	units	N/A	6.5-8.5	
Sodium[4]	N	**4.6** – 8.5	ppm	N/A	N/A	Geology; Road Salt
Sulfate	N	4.7-**4.9**	ppm	N/A	250	Naturally Occurring,
Disinfection Byproducts (Quarterly samples from 2/9/16, 5/10/16, 8/9/16 & 11/8/16)						
Haloacetic Acids (HAA5) (average)[5] Range of Values for HAA5	N	39 12-56	ppb	N/A	60	By-product of drinking water chlorination
TTHM[Total Trihalomethanes](average)[5] Range of values for TTHM	N	42.2 13-58	ppb	0	80	By-product of drinking water chlorination
Chlorine Residual (average) (range)	N	1.0 0.2-1.1	ppm	MRDLG N/A	MRDL 4	Used in the treatment and disinfection of drinking water

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. Distribution system turbidity performed 5 times a week with 0.087 NTU being the average level detected and 0.119 NTU being the highest level detected.
2. The level presented represents the 90th percentile of 20 test sites. The action level for copper was not exceeded at any of the 20 sites tested.
3. The level presented represents the 90th percentile of 20 test sites. The action level for lead was not exceeded at any of the 20 sites tested.
4. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets; Water containing more than 270 mg/l should not be consumed by persons on moderately restricted sodium diets.
5. The average is based on a running annual average.

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.
Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.
Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.
Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
90th Percentile Value- The values reported for lead and copper represent the 90th 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 90th percentile is equal to or greater than 90% of the lead and copper values detected at your water system
Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT) -A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
Maximum Contaminant Level - 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.
Maximum Contaminant Level Goal - 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.
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
N/A-not applicable

Appendix A

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

CITY OF JOHNSTOWN TEST RESULTS
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CONTAMINANT	MONITORING FREQUENCY
Asbestos	Every 9 years Sample from 5/22/13
Antimony	Monitoring requirement is one sample annually Sample results from 2/9/16 **NON DETECT**
Arsenic	
Beryllium	
Cadmium	
Chromium	
Cyanide	
Mercury	
Nickel	
Selenium	
Thalium	
Fluoride	
Color	Monitoring requirement is at State discretion Sample results from 02/09/2016 **NON DETECT**
Manganese	
Nitrate	
Odor	
Silver	
Zinc	

CONTAMINANT	CONTAMINANT	MONITORING FREQUENCY
POC's (Volatile Organic Compounds)		
Benzene	Trans-1,3-Dichloropropene	Monitoring requirement is one sample annually. Sample results from 2/9/16 **NON DETECT**
Bromobenzene	Ethylbenzene	
Bromochloromethane	Hexachlorobutadiene	
Bromomethane	Isopropylbenzene	
N-Butylbenzene	p-Isopropyltoluene	
sec-Butylbenzene	Methylene Chloride	
Tert-Butylbenzene	n-Propylbenzene	
Carbon Tetrachloride	Styrene	
Chlorobenzene	1,1,1,2-Tetrachloroethane	
2-Chlorotoluene	1,1,2,2-Tetrachloroethane	
4-Chlorotoluene	Tetrachloroethene	
Dibromethane	Toluene	
1,2-Dichlorobenzene	1,2,3-Trichlorobenzene	
1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	
1,4-Dichlorobenzene	1,1,1-Trichloroethane	
Dichlordifluoromethane	1,1,2-Trichloroethane	
1,1-Dichloroethane	Trichloroethene	
1,2-Dichloroethane	Trichlorofluoromethane	
1,1 Dichloroethene	1,2,3-Trichloropropane	
cis-1,2 Dichloroethene	1,2,4-Trimethylbenzene	
Trans-1,2-Dichloroethene	1,3,5-Trimethylbenzene	
1,2 Dichloropropane	m-Xylene	
1,3 Dichloropropane	o- Xylene	
2,2 Dichloropropane	p-Xylene	
1,1 Dichloropropene	Vinyl Chloride	
Cis-1,3-Dichloropropene		
Total Coliform / E. coli		Monitoring is 10 samples/ month **NON DETECT**
Radiological Parameters		
Gross Beta particle activity		requirement is one sample every 9 years Samples from 2008 **NON DETECT**
Radium 226 & 228	N/A	

Regulated & Unregulated Synthetic Organic Chemicals

Synthetic Organic Chemicals (Group I)	
Alachlor	Aldicarb
Aldicarb Sulfoxide	Aldicarb Sulfone
Atrazine	Carbofuran
Chlordane	Dibromochloropropane
2,4-D	Endrin
Ethylene Dibromide	Heptachlor
Lindane	Methoxyhlor
PCB's	Toxaphene
2,4,5-TP (Silvex)	

Synthetic Organic Chemicals (Group II)		
Aldrin	Benzo(a)pyrene	Monitoring requirement is every 18 months **NON DETECT** Sample 5/10/16 ***State waiver does not require monitoring these compounds**
Butachlor	Carbaryl	
Dalapon	Di(2-ethylhexyl)adipate	
Di(2-ethylhexyl)pthalate	Dicamba	
Dieldrin	Dinoseb	
Diquat*	Endothall*	
Glyphosate*	Hexachlorobenzene	
Hexachlorocyclopentadiene	3-Hydroxycarbofuran	
Methomyl	Metolachlor	
Metribuzin	Oxamyl vydate	
Pichloram	Propachlor	
Simazine	2,3,7,8-TCDD (Dioxin)*	