

Annual Drinking Water Quality Report for 2012

City of Johnstown

27-31 E. Main Street, Johnstown, NY 12095

Public Water Supply ID# NY1700019

INTRODUCTION

To comply with New York 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. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. 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: Ms. Cinda Spraker, Clerk of the Water Board, City of Johnstown 27-31 E. Main Street, Johnstown, NY 12095; Phone: 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 7:00 PM, in the conference room of the Water Department at 27-31 E. Main 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.

The City of Johnstown operates two slow sand filtration plants. Both plants are located west of the City in the Town of Johnstown and obtain their raw water from three separate sources: 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 just under 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 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 water storage tank in the northern part of the city.

FACTS AND FIGURES

The City of Johnstown provides water through 3,400 service connections to a population of approximately 8,900 people as well as many businesses. Our average daily demand is 1,721,074 gallons of water. Our highest single daily demand was 3,111,000 gallons. In 2012 we treated a total of 629,913,000 gallons of water with the combination of the Christman and Cork Center Treatment Plants. A total of 496,059,606 gallons was billed to customers. As a result, a total of 133,399,852 gallons of water (or 21.18%) 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 \$50.60 is charged for the first 2,000 cubic feet. Rates are as follows: \$2.53 per 100 cubic feet (748 gallons) for the first 200,000 cubic feet and \$1.80 per 100 cubic feet for all water used after 200,000 cubic feet for the remaining six month (or one month) billing period. The average annual charge per residential user is approximately \$250.00.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the City of Johnstown routinely monitors your drinking water for numerous contaminants. These contaminants include: inorganic compounds, radiological contaminants, lead and copper, nitrate, volatile organic compounds, synthetic organic compounds, total trihalomethanes, and haloacetic acids. In addition, we test at least 10 samples for coliform bacteria each month and chlorine, turbidity, and pH once per day. The tables presented on pages 3 and 4 depict 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 are not expected to vary significantly from year to year. Some of our data, though representative, are more than one year old and is noted. 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, our system had no violations. We have learned through our monitoring and testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by New York State regulations. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink two 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 2012, 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).

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 potentially contaminated.

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

WATER CONSERVATION TIPS

The City of Johnstown encourages water conservation. There are many things we can all do to conserve water in our homes and businesses. Saving water reduces energy consumption and some of the costs associated with both of these necessities of life. Saving water also lessens the strain on the water system during dry spells or droughts, helping to avoid severe water use restrictions so that essential fire fighting needs are met. Conservation tips include:

- Use water saving showerheads.
- Repair all leaks in your plumbing system.
- Turn off the tap while brushing your teeth or shaving.
- Water your lawn sparingly in the early morning or in the late evening.
- Do only full loads of laundry 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 IMPROVEMENT PROJECTS

During 2012, the Water Board continued to improve the new radio communications network between all of the water departments' facilities with the new SCADA (Supervisory Control and Data Acquisition) system to refine and optimize operation of the water system. The water department remained committed to improving the adequacy of the city's water system by installing new services for new homes and businesses, replacing old or irreparable water services, gate valves and hydrants. The Water Board requested proposals for purchasing new radio read meters and software. The Board continues to update and address various projects on their 5 year plan.

CLOSING

Thank you for allowing us to continue to provide you with clean, quality drinking water this year. 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. 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 the USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue SW, Washington, D.C. 20250-9410.

CITY OF JOHNSTOWN TEST RESULTS						
Public Water Supply ID# NY1700019						
Contaminant	Violation Y/N	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Microbiological Contaminants						
Turbidity ¹¹ (from 3/23/2012 Christman)	N	0.159	NTU		TT=5 NTU	Soil runoff
Turbidity ¹		0.010-0.159				
Turbidity	N	100%	NTU		TT=% samples <1.0	
Inorganic Contaminants (Sample data from 2/6/12 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	0.0052- 0.0078	ppb	2000	2000	Erosion of natural deposits
Chloride	N	4 – 14	ppm		250	Geology; Naturally occurring
Copper – Sample from 2/6/2012	N	500 ²	ppb	1300	AL=1300	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Range of Copper concentration		20-770				
Lead – Sample from 2/6/2012	N	2 ³	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Range of lead concentration		ND-3				
pH	N	7.8 -7.7	Units		6/5 – 8.5	
Sodium ⁴	N	3.5 – 8.5	ppm	N/A	N/A	Geology; Road Salt
Sulfate	N	7	ppm	N/A	250	Naturally occurring
Disinfection byproducts (Quarterly samples from 2/16/12, 5/8/12, 8/14/12 & 11/13/12)						
Haloacetic Acids (HAA5)(average) ⁵	N	19.50	ppb	N/A	60	By-product of drinking water

Range of Values for HAA5		19.3-27.0				chlorination
TTHM (Total Trihalomethanes)(average) ⁵ Range of Values	N	20.6 10.3-29.8	ppb	0	80	By-product of drinking water chlorination
Chlorine Residual (average) (range)	N	0.65 0.2 – 1.1	ppm	MRDLG N/A	MRDL 4	Used in treatment and disinfection of drinking water

Footnotes:

1. Turbidity is a measure of the cloudiness of the water. We monitor and test it because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest level detected. Distribution system turbidity tests performed five times per week with 0.055 NTU being the average level detected and 0.159 NTU being the highest level detected.
2. The level presented represents the 90th percentile of 20 sites tested. 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 sites tested. 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.

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.
- 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.

CITY OF JOHNSTOWN TEST RESULTS					
Public Water Supply ID#NY1700019					
CONTAMINANT	MONITORING FREQUENCY		CONTAMINANT	CONTAMINANT	MONITORING FREQUENCY
Asbestos	Every 9 years Sample from 12/7/05		POC's (Volatile Organic Compounds)		
Antimony	<0.0005	Monitoring requirement is one sample annually. Sample results from 2/6/12	Benzene	Trans – 1,3-Dichloropropene	Monitoring requirement is one sample annually. Sample results from 2/6/12 NON DETECT
Arsenic	<0.005		Bromobenzene	Ethylbenzene	
Barium	<0.10		Bromochloromethane	Hexachlorobutadiene	
Beryllium	<0.005		Bromomethane	Isopropylbenzene	
Cadmium	<0.001		N-Butylbenzene	p-Isopropyltoluene	
Chromium	<0.002		Sec-Butylbenzene	Methylene Chloride	
Cyanide	<0.010		Tert-Butylbenzene	n-Propylbenzene	
Mercury	<0.0004		Carbon Tetrachloride	Styrene	
Nickel	0.0005-0.0009		Chlorobenzene	1,1,1,2-Tetrachloroethane	
Selenium	<0.002		2-Chlorotoluene	1,1,2,2-Tetrachloroethane	
Thallium	<0.0005		4-Chlorotoluene	Tetrachloroethene	
Fluoride	<0.20		Dibromomethane	Toluene	
			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		
		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	
Color	<5	Monitoring requirement is at State discretion Sample results from 2/6/12			
Iron	<0.05				
Manganese	<0.01				
Nitrate	<0.2				
Odor	CL2(1)-ND				
Silver	<0.002				
Zinc	<0.01				

				samples/month NON DETECT
		Radiological Parameters		
		Gross Beta particle activity	N/A	Requirement is one sample every 6 years. Sample from 4/13/10
		Radium 226	0.93-ND	
Regulated & unregulated Synthetic Organic Chemicals				
Synthetic Organic Chemicals (Group I)		Synthetic Organic Chemicals (Group II)		
Alachlor	Aldicarb	Aldrin	Benzo(a)pyrene	Monitoring requirement is every 18 months.
Aldicarb Sulfoxide	Aldicarb Sulfone	Butachlor	Carbaryl	
Atrazine	Carbofuran	Dalapon	Di(2-ethylhexyl)adipate	NON DETECT Sample results from 2/6/2012 *State waiver does not require monitoring these compounds.
Chlordane	Dibromochloropropane	Di(2-ethylhexyl)phthalate	Dicamba	
2,4-D	Endrin	Dieldrin	Dinoseb	
Ethylene Dibromide	Heptachlor	Diquate*	Endothal*	
Lindane	Methoxyflor	Glyphosate*	Hexachlorobenzene	
PCB's	Toxaphene	Hexachlorocyclopentadiene	3-Hydroxycarbofuran	
2,4,5-TP (Silvex)		Methomyl	Metolachlor	
		Metribuzin	Oxymyl vydate	
		Pichloram	Propachlor	
		Simazine	2,3,7,8-TCDD (Dioxin)*	