Annual Water Quality Report for 2019

City of Cohoes

97 Mohawk Street, Cohoes, NY 12047

(Public Water Supply Identification Number NY0100192)

INTRODUCTION

To comply with State regulations, the City of Cohoes, 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 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 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: *Jason Oliver, Chief Water Plant Operator, City of Cohoes, 97 Mohawk Street, Cohoes, NY 12047; Telephone (518) 237-4320.* We want our valued customers to be informed about their water service. If you want to learn more, please attend any of our regularly scheduled City Council meetings. They are held on the 2nd and 4th Tuesday of each month, 7:00 PM, at the *City Hall*, 97 Mohawk Street; Telephone *(518) 233-2121*.

WHERE DOES OUR WATER COME FROM?

The City of Cohoes draws its water from the Mohawk River a "surface water" source. Water is pumped from the National Grid Canal located on North Mohawk Street up to the 75-million-gallon Raw Water Storage Reservoir on Upper Vliet Blvd. The treatment process at Cohoes consists of: potassium permanganate addition for taste and odor control; coagulation and flocculation using polyaluminum chloride (PAC) to cause small particles to stick together when the water is mixed, making larger heavier particles; sedimentation to allow the newly formed larger particles to settle out naturally; filtration to remove smaller particles by trapping them in sand filters; along with a ortho-phosphate corrosion inhibitor for iron and manganese control and post chlorination to prevent bacterial contamination. During the warmer months we also re-chlorinate the water at the two storage tanks (lower reservoir) located on Vliet St. and Simmons Ave. providing additional control against bacterial contamination.

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 Environmental Protection Agency (EPA) prescribe regulations, which limit the amount of certain contaminants in water, provided by public water systems. The State Health Department's and the Food and Drug Administration's (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 Cohoes provides water through 4,687 residential service connections and 60 industrial services to a population of approximately 16,883 people. We also supply a small section of the Town of Colonie, which includes 6 residential services and 2 industrial services. Our average daily demand is 2.987 million gallons and our single highest day was 4.129 million gallons. During 2019, a total of 1,090,085,000 gallons was withdrawn from the Mohawk River Approximately 21,508,000 gallons were used for water plant operations such as filter backwashing and sedimentation tank cleaning. City residents used 527,679,600 gallons through metered sales. Lansing Public Pool used 4,000,000 gallons. Of that total, the Village of Green Island purchased 21,478,200 gallons and the residents in the Town of Colonie purchased 3,902,900 gallons and Waterford purchased 99,121,000 gallons. This leaves an unaccounted-for total of 540,898,600 gallons or approximately 50.4% lost from distribution system leaks, water breaks, fighting fires, street sweeper, unmetered use and unauthorized use.

The rate for Residential, Commercial and Industrial customers is $3.70 per thousand gallons of water used and $3.60 per thousand gallons for sewer. There is a minimum charge for infrastructure improvements charged to residential, commercial and industrial customers at a rate of $15/30/45 per quarter respectively for water and sewer customers. There is no longer a minimum usage charge and billing is done quarterly.

We have had problems over the years with high percentages of water measured as lost. It appears that some of the problems have been with the metering such as using undersized meters or meters not working. Also, the location of the raw water meter needs a longer length of strait pipe with no elbows. We do not have that luxury with the current layout of our Water Treatment Plant which is the cause of many inaccurate meter readings.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the City of Cohoes 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 15 samples for coliform bacteria each month. The attached table presented below depicts 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 and is noted. For a listing of all the parameters that we must analyze and the frequency of testing for compliance with the NYS Sanitary Code, see Appendix A.

Unregulated Contaminant Monitoring 4 was conducted during 2018. This is a requirement of the 1996 Safe Drinking Water Act amendments. This monitoring provides a basis for future regulatory action to protect the public health. The number in parentheses refers to the number of measured for a total of 30 analytes. The breakdown of analytes is as follows: semi volatile organic chemicals (3), pesticides and pesticide manufacturing byproduct (9), metals (2), alcohols (3), cyanotoxin chemical contaminants (10), brominated haloacetic acid groups(3) and indicator compounds (2). We have listed those compounds that were detected in the table of Detected Contaminants for Cohoes. There are no associated MCL's for these compounds at this time with the exception of Manganese.

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 Albany County Health Department at (518) 447-4620.

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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. .Maximum Contaminant Levels (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, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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 (Centers for Disease Control) 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).

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

- Only run the dishwasher and clothes washer when there is a full load
- Use water saving showerheads
- Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute
- Water gardens and lawn for only a couple of hours after sunset
- Check faucets, pipes and toilets for leaks and repair all leaks promptly
- Take shorter showers

CAPITAL IMPROVEMENTS
During 2019 there were no major capital projects.

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.

City of Cohoes - Mohawk River
NY01000192
Source Water Assessment Summary

The NYS DOH has completed a Source Water Assessment for the Mohawk River upstream of the Cohoes intake. The assessment is summarized below. The assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how likely contaminants could enter the Mohawk River. The susceptibility rating is an estimate of the potential for contamination. It does not mean that the water delivered to your home is or will become unsafe to drink. See section "Are there contaminants in our drinking water?" of this report, for information concerning low levels of contaminants in your water.

This assessment found the amount of pasture in the Mohawk River assessment area results in a potential for protozoa contamination. While there are many facilities present along the Mohawk that are permitted to discharge, they do not represent an important threat to source water quality. However, it is appears that the total amount of wastewater discharged to surface water in this assessment area is high enough to raise the potential for contamination (particularly for protozoa). Finally, it should be noted that relatively high flow velocities make river drinking water supplies highly sensitive to existing and new sources of microbial contamination.

The Cohoes water treatment plant performs multi-level treatment to insure you receive safe drinking water. Additionally, as this annual report shows your water is routinely monitored for a great number of potential contaminants.

A copy of the full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.

CITY OF COHOES TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY01000192

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity (Highest turbidity sample from 12/10/19)	N	0.227[1]	NTU	N/A	TT=1.0 NTU	Soil runoff
Turbidity		100%			TT= 95% samples < 0.3	

Inorganic Contaminants (Sample data from 10/22/18 unless otherwise noted)						
Barium	N	23.9	ppb	2000	2000	Discharge of drilling wastes; erosion of natural deposits
Chloride	N	38.4	ppm	N/A	250	Geology; Naturally occurring
Color	N	5	units	N/A	15	Decaying leaves plants and organic matter; metals such as copper, iron and manganese
Copper (sample data from 5/12/15-6/25/15) Range of copper concentration	N	0.21[2] 0.02-0.31	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits;
Lead (sample data from 5/12/15-6/25/15) Range of lead concentration	N	ND[3] ND- 3	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Manganese	N	19.8	ppb	N/A	300	Erosion of natural deposits
Nickel	0.9	3.6	ppb	N/A	N/A	Discharge from steel/metal factories
Nitrate (as Nitrogen)	N	0.496	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Odor	N	1	units	N/A	3	Natural sources
pH	N	7.38	units	N/A	6.5-8.5	
Sodium[4]	N	23.4	ppm	N/A	N/A	Naturally Occurring, Road salt
Sulfate	N	14.6	ppm	N/A	250	Naturally Occurring
Zinc	N	51.7	ppb	N/A	5000	Naturally Occurring; corrosion inhibitor
Radiological Contaminants (samples from 3/24/15)						
Gross Alpha	N	2.79	pCi/L	0	15	Erosion of natural deposits
Radium 228	N	0.54	pCi/L	0	5	Erosion of natural deposits
Stage 2 Disinfection Byproducts (DBPs), (THM & HAA5 Sample data based on 4 samples/ qtr. from 2/14/18, 5/9/18, 8/8/18, &11/7/18)						
Haloacetic Acids (HAA5)](Average)[5] Range of Values for HAA5	N	36 18-46.3	ppb	N/A	60	By-product of drinking water disinfection
Total Trihalomethanes] TTHM (Average)[5] Range of values for Total Trihalomethanes	N	61.0 18.2-71	ppb	N/A	80	By-product of drinking water chlorination
Chlorine (average) Range of chlorine residual	N	1.18 0.30-2.22	ppm	MRDLG N/A	MRDL 4	Used in the treatment and disinfection of drinking water
Total Organic Carbon Compliance Ratio	N	1.33-1.98	-	Compliance ratio >=1	TT[6]	Organic material both natural and manmade; Organic pollutants, decaying vegetation,
Unregulated Contaminant Monitoring 4 (Quarterly samples collected 1/10/18, 4/23/18, 7/23/18 10/22/18) HAA9, HAA6 Bromide & TOC samples collected same as DBP's above						
Manganese	N	3.25-791	ppb	N/A	300	Naturally occurring
HAA9	N/A	22.3-54.9	ppb	N/A	N/A	
HAA6	N/A	3.85-9.5	ppb	N/A	N/A	
Bromide (Raw Water)	N/A	ND-23.2	ppb	N/A	N/A	
Total Organic Carbon (Raw Water)	N/A	3.2-4.8	ppm	N/A	N/A	

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. The regulations require 95% of the turbidity samples collected have measurements below 0.3 NTU. We met the standard 100% of the time. We also collect a distribution turbidity sample 5 times a week. Our average distribution turbidity for 2019 was 0.15 NTU.
2. The level presented represents the 90th percentile of 30 test sites. The action level for copper was not exceeded at any of the 30 sites tested
3. The level presented represents the 90th percentile of 30 test sites. The action level for lead was not exceeded at any of the 30 sites tested
4. Water containing more than 20 ppm should not be consumed by persons on severely restricted sodium diets.
5. The average shown is based on a Locational Running Annual Average (LRAA). The LRAA shown is the highest of the 4 sample sites. The Highest THM LRAA was in the 2nd quarter of 2019 and the highest HAA5 LRAA was in the 3rd quarter. was in the 4th quarter of 2019.
6. The Interim Enhanced Surface Water Treatment Rule (IESWTR) requires monitoring of raw and finished water Total Organic Carbon (TOC). Depending on the raw water alkalinity value, proper water treatment should remove between 15% to 35% of the raw water TOC thus reducing the amount of disinfection byproducts produced**.** The removal or compliance ratio should be 1 or greater for each quarter.

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. .
Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.
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.
Locational Running Annual Average (LRAA): The LRAA is calculated by taking the average of the four most recent samples collected at each individual site.
N/A-*Not applicable*

Appendix A

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

VILLAGE OF GREEN ISLAND TEST RESULTS Public Water Supply Identification Number NY01000195					
CONTAMINANT	MONITORING FREQUENCY		CONTAMINANT	CONTAMINANT	MONITORING FREQUENCY
Asbestos	Every 9 years		**POC's (Volatile Organic Compounds)**		

	Waiver from monitoring No asbestos pipe		Benzene	Trans-1,3-Dichloropropene	
					Monitoring requirement is one sample annually.
Antimony	Monitoring requirement is one sample every year.		Bromobenzene	Ethylbenzene	
Arsenic			Bromochloromethane	Hexachlorobutadiene	
Beryllium			Bromomethane	Isopropylbenzene	
Cadmium	Sample results from 1/29/19		N-Butylbenzene	p-Isopropyltoluene	Sample from 1/29/19
Chromium			sec-Butylbenzene	Methylene Chloride	
Mercury	**NON-DETECT**		Tert-Butylbenzene	n-Propylbenzene	
Selenium			Carbon Tetrachloride	Styrene	
Thallium			Chlorobenzene	1,1,1,2-Tetrachloroethane	
			2-Chlorotoluene	1,1,2,2-Tetrachloroethane	
Cyanide			4-Chlorotoluene	Tetrachloroethene	
			Dibromethane	Toluene	
			1,2-Dichlorobenzene	1,2,3-Trichlorobenzene	**NON-DETECT**
			1,3-Dichlorobenzene	1,2,4-Trichlorobenzene	
			1,4-Dichlorobenzene	1,1,1-Trichloroethane	
			Dichlordifluoromethane	1,1,2-Trichloroethane	
			1,1-Dichloroethane	Trichloroethene	
	Monitoring requirement is at State discretion Sample results from 1/29/19		1,2-Dichloroethane	Trichlorofluoromethane	
			1,1 Dichloroethene	1,2,3-Trichloropropane	
Silver			cis-1,2 Dichloroethene	1,2,4-Trimethylbenzene	
			Trans-1,2-Dichloroethene	1,3,5-Trimethylbenzene	
			1,2 Dichloropropane	m-Xylene	
Iron			1,3 Dichloropropane	o- Xylene	
			2,2 Dichloropropane	p-Xylene	
			1,1 Dichloropropene	Vinyl Chloride	
	NON-DETECT		Cis-1,3-Dichloropropene		
Microbiological Contaminants			**Radiological Parameters**		
E. coli	4 samples monthly		Gross Alpa particle activity	Sample from 3/6/17	Monitoring requirement is one sample every 6-9 years. **NON-DETECT**
			Radium 226		
			Radium 228		
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 36 months **NON-DETECT** Sample results from 4/12/19 *State waiver does not require monitoring these compounds
Aldicarb Sulfoxide	Aldicarb Sulfone		Butachlor	Carbaryl	
Atrazine	Carbofuran		Dalapon	Di(2-ethylhexyl) adipate	
Chlordane	Dibromochloropropane		Di(2-ethylhexyl) pthalate	Dicamba	
2,4-D	Endrin		Dieldrin	Dinoseb	
Ethylene Dibromide	Heptachlor		Diquat*	Endothall*	
Lindane	Methoxyhlor		Glyphosate*	Hexachlorobenzene	
PCB's	Toxaphene		Hexachlorocyclopentadiene	3-Hydroxycarbofuran	
2,4,5-TP (Silvex)			Methomyl	Metolachlor	
			Metribuzin	Oxamyl vydate	
			Pichloram	Propachlor	
			Simazine	2,3,7,8-TCDD (Dioxin)*	