

## **Annual Drinking Water Quality Report for 2016**

**City of Corning**

**500 Nasser Civic Center Plaza**

**Corning, NY 14830**

**(Public Water Supply ID# NYS 5001209)**

**(Public Water Supply ID# NY 5030114)**

### **INTRODUCTION**

To Comply with State regulations, the City of Corning 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 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 Brad Yackel, Water Distribution System Supervisor, at (607) 962-0340 ext. 1304. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled City Council meetings. The meetings are held the first Monday of every month at City Hall Council Chambers at 7:00 PM.

### **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.

At the time of this report, a source water assessment was not available from the NYS Department of Health. For any questions regarding this assessment, please contact the Hornell District Office of the NYS Department of Health at 607-324-8371.

The City of Corning (PWS-NY5001209) and the Hornby Water District (PWS-NY5030114) derives its water supply from the Chemung Valley Aquifer. Water is withdrawn from this aquifer by five wells located throughout the City. These wells yield ample reserve capacity to supply all demands of the City including firefighting.

The City of Corning provides the following treatment to its water supply:

- Chlorination for disinfection on all its wells
- Air stripping for removal of TCE at wells 1, 2 and 8A
- Addition of poly-phosphate for the purpose of sequestering calcium at wells 1, 2 and 8A

### **FACTS AND FIGURES**

Our water system serves 11,100 people through approximately 4,300 service connections. The total water produced in 2016 was 393 million gallons. The daily average of water treated and pumped into the distribution system was 1,076,712 gallons per day. The amount of water delivered to customers was 328 million gallons. This leaves an unaccounted for total of 65 million gallons. This water was used to flush mains, fight fires and accounts for leakage and inaccurate water meters, (16% of the total amount produced).

In 2016, water customers were charged per the following chart.

Meter Size	Reading Frequency	#of Units* Base Block	Base Charge
5/8"	Quarterly	9	\$ 45.81
3/4"	Quarterly	10	\$ 50.54
1"	Quarterly	75	\$ 158.98
1-1/2"	Quarterly	150	\$ 285.83
2"	Quarterly	300	\$ 549.18
2" (High-Volume)**	Monthly	150	\$ 321.18
3"	Monthly	200	\$ 657.43
4"	Monthly	300	\$ 905.82
6"	Monthly	400	\$1,282.73
8" & Above	Monthly	500	\$1,691.77

\* -1 Unit equals 100 cubic feet of water

\*\* -2" High Volume users shall be defined as an account having a use history which exceeded one-hundred (100) units per month for seven (7) out of twelve (12) months in the previous fiscal year.

Effective July 1, 2015, additional units of water above the base block shall be billed at \$1.52 per unit through 15 units; \$1.51 per unit for units 16 through 25; \$1.50 per unit for units 26 through 75; \$1.49 per unit for units 76 through 150; \$1.48 per unit for units 151 through 300; \$1.47 per unit for units 301 through 500; \$1.46 per unit for units 501 through 1,000; \$1.45 per unit for units 1,001 through 2,000; \$1.44 per unit for units 2,001 through 4,000; \$1.43 per unit for units 4,001 through 8,000; \$1.42 per unit for 8001 units or more.

The annual average residential water charge per user in 2016 was \$330.04

## SECURITY

Since 9/11, the City of Corning has taken steps to improve the security of your water supply. As funds become available, we will continue to improve our security systems. We encourage our customers to report any suspicious activity regarding our water facilities to the City of Corning Police Department (962-0340) ext. 1500 and the City of Corning Water Department (962-0340) ext. 1300. Unauthorized use of City hydrants and shut-offs is strictly prohibited.

## ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds, and numerous other unregulated contaminants. Additionally, your water is tested for coliform bacteria ten times a month. In 2016, we tested for more than 140 contaminants. The table 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 New York State Department of Health, 107 Broadway, Hornell, NY 14843 - Phone (607) 324-8371.

<b>Table of Detected Contaminants</b>							
<b>Contaminant</b>	<b>Violation Yes/No</b>	<b>Date of Sample</b>	<b>Level Detected (Maximum Range)</b>	<b>Unit Measurement</b>	<b>MCLG</b>	<b>Regulatory Limit (MCL, TT or AL)</b>	<b>Likely Source of Contamination</b>
<b>Radioactive</b>							
Radium 226 Well 1 & 2	NO	8/12/2013	0.2	pCi/L	5	5	Erosion of natural deposits.
Radium 226 Well 3	NO	8/12/2013	0.1	pCi/L	5	5	
Radium 226 Well 8	NO	8/12/2013	0.04	pCi/L	5	5	
Radium 228 Well 3	NO	8/12/2013	0.5	pCi/L	5	5	
Radium 228 Well 9	NO	8/12/2013	0.42	pCi/L	5	5	

<b>Contaminant</b>	<b>Violation Yes / No</b>	<b>Date of Sample</b>	<b>Level Detected (Maximum) (Range)</b>	<b>Unit Measurement</b>	<b>MCLG</b>	<b>Regulatory Limit (MCL, TT or AL)</b>	<b>Likely Sources of Contamination</b>
<b>Inorganic Contaminants</b>							
Barium - Well 1&2	NO	8/10/2015	0.29	mg/l	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Barium - Well 3	NO	8/8/2016	0.12	mg/l	2	2	
Barium - Well 8A	NO	8/10/2015	0.27	mg/l	2	2	
Barium - Well 9	NO	8/25/2014	0.12	mg/l	2	2	
Chromium – Well 1&2	NO	8/10/2015	2.1	ppb	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Chromium - Well 3	NO	8/8/2016	2.9	ppb	100	100	
Chromium – Well 8A	NO	8/10/2015	2.3	ppb	100	100	
Chromium - Well 9	NO	8/25/2014	3	ppb	100	100	
Selenium - Well 1&2	NO	8/10/2015	2.9	ppb	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Selenium - Well 9	NO	8/25/2014	1	ppb	50	50	

Contaminant	Violation Yes / No	Date of Sample	Level Detected (Maximum) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Sources of Contamination
<b>Organic Contaminants</b>							
Nitrate - Well 1&2	NO	8/8/2016	2.2	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrate - Well 3	NO	8/8/2016	1.3	mg/l	10	10	
Nitrate - Well 8A	NO	8/8/2016	1.4	mg/l	10	10	
Nitrate - Well 9	NO	8/8/2016	0.79	mg/l	10	10	
Sodium - Well 1&2	NO	8/8/2016	56	mg/l	n/a	n/a	Naturally occurring; Road salt; Water softeners; Animal waste.
Sodium - Well 3	NO	8/8/2016	54	mg/l	n/a	n/a	
Sodium - Well 8A	NO	8/8/2016	42	mg/l	n/a	n/a	
Sodium - Well 9	NO	8/8/2016	57	mg/l	n/a	n/a	
Sodium: Health Effects	Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.						

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Disinfection Byproducts</b>							
Total Trihalomethanes							By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Mt. Brow Apts.	NO	8/5/2016	34	ppb	N/A	80	
22 West 3 <sup>rd</sup> Street	NO	8/5/2016	22	ppb	N/A	80	
Total Haloacetic Acids							By-product of drinking water disinfection needed to kill harmful organisms.
Mt. Brow Apts.	NO	8/5/2016	10	ppb	N/A	60	
22 West 3 <sup>rd</sup> Street	NO	8/5/2016	1.1	ppb	N/A	60	

Contaminant	Violation	Date of Sample	Level Detected (Maximum Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
	Yes/No						
LEAD (1)	NO	7/11/2014	90 <sup>th</sup> percentile 7.2	ppb	0	15	Corrosion of household plumbing systems; Erosion of natural deposits.
			Range:				
			<1-12				
LEAD: Health Effects	Infants and children who drink water-containing lead in excess of the action level could experience delays in the physical and mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water.						
COPPER (2)	NO	7/11/2014	90 <sup>th</sup> Percentile 0.65	ppm	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
			Range:				
			0.058-1.0				
COPPER: Health Effects	Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.						

(1) The level presented represents the 90<sup>th</sup> percentile of the 31 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 lead values detected at your water system. In this case, 31 samples were collected at your water system and the 90<sup>th</sup> percentile value was 7.2 parts per billion (ppb).

2) The level presented represents the 90<sup>th</sup> percentile of the 31 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, 31 samples were collected at your water system and the 90<sup>th</sup> percentile value was 0.65 parts per million (ppm).

## DEFINITIONS

**Maximum Contaminant Level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to 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 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 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 in one trillion parts of liquid (parts per trillion - ppt).  
Picograms per liter (pg/l): Corresponds to one part of liquid in 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..  
Std. Units: Standard Units, used to describe pH; pH can range from 1 Std. Unit (highly acidic) to 14 Std. Units (highly basic) with 7.0 being neutral

## **WHAT DOES THIS INFORMATION MEAN?**

As you can see by our 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.

### **General 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 City of Corning 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

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

During 2016, our system was in compliance with all applicable State drinking water requirements for operations.

## **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. Immune-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 fire fighting 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 up 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.

## FREQUENTLY ASKED QUESTIONS

*What can I do about chlorine odors in tap water?*

1. Chlorine odors may be more noticeable when the weather is warmer.
2. Chlorine is essential to kill organisms that may cause disease.

The following are ways you can remove the chlorine odor from your drinking water:

- Fill a pitcher and let it stand in the refrigerator overnight. (This is the best way)
- Fill a glass or jar with water and let it stand in sunlight for 30 minutes.
- Pour water from one container to another about 10 times.
- Heat the water to about 100 degrees Fahrenheit.

Once you remove the chlorine, be sure to refrigerate the water to limit bacterial re-growth.

*Sometimes my water is a rusty brown color. What causes this?*

Brown water is often the result of street construction or water main work being done in the area. Any disturbance to the main, including the opening of a fire hydrant, can cause pipe sediment to shift, resulting in brown water. The settling time of the main will vary, depending on the size of the water main. In addition, brown water is commonly associated with plumbing corrosion problems inside buildings and from rusting hot water heaters. If you have a problem with brown water, it is recommended that you run your cold water for 2 - 3 minutes if it has not been used for an extended period of time. This will flush the line. You can avoid wasting water by catching your "flush" water in a container and using it to water plants or for other purposes.

*Drinking water often looks cloudy when first taken from a faucet, but then clears up. Why?*

Air becomes trapped in the water during main repairs. The water as a result, can sometimes appear cloudy or milky. This condition presents no threat to public health. The cloudiness is temporary and clears quickly after the water is drawn from the tap and the excess air is released.

## ADDITIONAL COPIES

Additional copies of this report may be obtained by calling 607-962-0340 ext 1300 or by visiting the Customer Service Center at 381 Market Street Ext.

## CLOSING

Thank you for allowing us to continue to provide your family with 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, our way of life and our children's future. Please call our office if you have questions.