

# *Annual Drinking Water Quality Report for 2020*

Town of Amsterdam

283 Manny Corners Road

Amsterdam, NY 12010

(Public Water Supply Identification Number NY2811730)

## **INTRODUCTION**

To comply with State regulations, the Town of Amsterdam, 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: *Mr. Carl J. Rust, Water Superintendent, Town of Amsterdam, 283 Manny Corners Road, Amsterdam, NY 12010; Telephone # (518) 842-7961.* We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 3<sup>rd</sup> Wednesday of each month, 7:00 PM at the *Town Office Building, Telephone (518) 842-7961.*

## **WHERE DOES OUR WATER COME FROM?**

The Town of Amsterdam purchases its water from the City of Amsterdam. The City of Amsterdam's water sources are the Steele Reservoir, Ireland Vly Reservoir and Round Lake Reservoir which are located in Saratoga County, New York. Each of the 3 Reservoirs has its' own characteristics of water quality. This requires different chemical treatment at their Water Treatment Plant depending on which source is being used. Reservoirs are alternated mainly based on weather conditions or raw water quality. The treatment plant enhances the water quality by removing any solids, metals (primarily iron and manganese), color producing compounds or other organic and inorganic compounds. Chemical treatment consists of coagulation with a cationic polymer blended coagulant aid, an inorganic coagulant and flocculating agent, sodium hydroxide, and a cationic filter aid all prior to filtration. Post filtration consists of ultraviolet disinfection, pH adjustment, phosphoric acid for corrosion control and chlorine for disinfection. There are also five Carbon Contactors to aid in removing precursors that for THMs & HAA5s when chlorine is added for disinfection. The Town of Amsterdam also adds chlorine at the Pump Station interconnect with the City of Amsterdam to prevent 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 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 Town of Amsterdam provides water through 354 service connections to a population of approximately 3,500 people. Our average daily demand is 150,000 gallons. Our single highest day was 170,000 gallons. The total water pumped in 2020 was 54,824,985 gallons.

**ARE THERE CONTAMINANTS IN OUR DRINKING WATER?**

In accordance with State regulations, the Town of Amsterdam 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, haloacetic acids, trihalomethanes and synthetic organic contaminants. In addition, we test 1 sample for coliform bacteria each month. The 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.

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 the Amsterdam Water Works. 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 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 contaminants 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?**

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 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 Town of Amsterdam 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 Town of Amsterdam 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

#### **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. Please call our office if you have questions.

TOWN OF AMSTERDAM TABLE OF DETECTED CONTAMINANTS						
Public Water Supply Identification Number NY2811730						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Turbidity <sup>1</sup> (Highest turbidity sample 10/6/20)	N	0.30 <sup>1</sup> 100%	NTU	N/A	TT=1 NTU TT= 95% samples < 0.3 NTU	Soil runoff
Total Coliform (from 10/7/20)	N	1 positive sample	N/A	0	2 or more positive samples	Naturally present in the environment.
<b>Inorganic Contaminants (sample data from 1/24/20 unless otherwise noted)</b>						
Barium	N	6.7	ppb	2000	2000	Erosion of natural deposits
Chloride	N	8.54	ppm	N/A	250	Naturally occurring or indicative of road salt contamination.
Color	N	10	units	N/A	15	Naturally occurring
Lead (from 4/20/18)	Y	16 <sup>2</sup>	ppb	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
Range of values		ND-660				
Lead (from 9/20/18)	Y	21 <sup>2</sup>				
Range of values		ND-140				
Manganese	N	16.8	ppb	N/A	300	Naturally occurring
Odor	N	1	unit	N/A	3	Natural sources
pH	N	8.10	units		6.5-8.5	
Sodium <sup>3</sup>	N	4.66	ppm	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
Zinc	N	6.1	ppb	N/A	5000	Naturally occurring
<b>Synthetic Organic Chemicals (from 9/21/20 &amp; 12/14/20)</b>						
PFOA	N	ND-5.43	ppt	N/A	10	Released into the environment from widespread use in commercial and industrial applications.
PFOS	N	ND-4.58	ppt	N/A	10	
<b>Stage 2 Disinfection Byproducts (quarterly samples from 2/7/20, 5/8/20, 8/2/20 &amp; 11/6/20 collected at 1 site)</b>						
Chlorine [daily samples]	N	1.15	ppm	MRDLG	MRDL	Used in the disinfection and treatment of drinking water
Range		0.39-1.56		N/A	4	
Chlorine Dioxide	N	50-180	ppb	800	800	Water additive used to control microbes
Chlorite (quarterly samples from (2/12/20, 5/13/20, 8/12/20 & 11/10/20) for 3 sites range of samples	N	ND-14	ppb	N/A	1000	Byproduct of chlorine dioxide used in disinfection
Haloacetic Acids (HAA5) <sup>4</sup>	N	24.2	ppb	N/A	60	By-product of drinking water disinfection
Range of Values for HAA5		2.3-30.8				
TTHM[Total Trihalomethanes](Average) <sup>3,4</sup>	N	79.7	ppb	0	80	By-product of drinking water chlorination
Range of values for Total Trihalomethanes		45.9-102				
<b>Total Organic Carbon (monthly samples for 2020)</b>						
Total Organic Carbon Compliance Ratio	N	1.02-1.12	ppm	NA	TT	Organic material both natural and manmade; Organic pollutants, decaying vegetation.
<b>Unregulated Contaminant Monitoring 4<sup>5</sup> (Quarterly samples collected 1/10/18, 4/23/18, 7/25/18, &amp; 10/22/18) (HAA's &amp; TOC samples 2/14/18, 5/7/18, 8/8/18 &amp; 11/14/18)</b>						
Manganese (range of 4 quarters)	N	6.15-31.8	ppb	N/A	300	Erosion of natural deposits
HAA9 (range of 4 quarters)	N/A	13.1-53.98	ppb	N/A	N/A	By-product of drinking water disinfection
HAA6 (range of 4 quarters)	N/A	13.1-53.98	ppb	N/A	N/A	By-product of drinking water disinfection
Total Organic Carbon Raw Water	N/A	6.16-7.05	ppm	N/A	N/A	Organic material both natural and manmade;
<b>NOTES-</b>						
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 range of levels detected. State regulations require that entry point turbidity must always be below 1.0NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU.						
2. The level presented represent the 90 <sup>th</sup> percentile of the 60 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. During the April 2018 sampling the AL was 16 ppb and 7 of the 60 sites exceeded the AL. In the September 2018 sampling the AL was 21 ppb and 9 sites out of 60 exceeded the AL.						
3. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.						
4. The average is based on a Locational Running Annual Average. The average shown represents the highest LRAA for the 4 quarters in 2020. The highest LRAA for the HAA5s was in the 1 <sup>st</sup> quarter of 2020 and the highest LRAA for the THMs was in the 4 <sup>th</sup> quarter of 2020.						
5. There are no regulatory limits for these compounds with the exception of manganese						
<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>Parts per trillion (ppt) (ng/l) corresponds to one part of liquid to one trillion parts of liquid</i>						
<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>90<sup>th</sup> Percentile Value</i> - The values reported for lead and copper represent the 90 <sup>th</sup> percentile. A percentile is a value on a scale of 100 that indicates the percent						
<i>Action Level</i> - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.						
<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						
<i>N/A</i> -not applicable						

## INTRODUCTION

To comply with state regulations, the Amsterdam Water Treatment Plant annually issues 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, we conducted tests for approximately 150 contaminants.

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 questions relating to your drinking water, contact Randy Gardinier, Chief Plant Operator at 518-843-3009. We want you to be informed about your drinking water.

Public participation in decisions that affect drinking water quality can be done at regularly scheduled meetings of the Common Council of the City of Amsterdam. These meetings are scheduled for the 1st and 3rd Tuesdays of each month at City Hall.

## 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 and the FDA's regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Our water source is surface water drawn from a combination of 3 city owned reservoirs located approximately 15 miles from the city. Each of the three reservoirs has its' own characteristics of water quality. This requires different chemical treatment at the Water Treatment Plant depending on which source is being used. Reservoirs are alternated mainly based on weather conditions, or raw water quality. The treatment plant enhances our raw water by removing solids, metals (primarily iron and manganese), color producing compounds or other organic and inorganic compounds. At the treatment plant, we continuously monitor the clarity and disinfectant levels to ensure the bacteriological safety of the water. Chemical treatment consists of coagulation with a cationic polymer blended coagulant aid, an inorganic coagulant and

floculating agent, Sodium Hydroxide, and a cationic filter aid all prior to filtration. Post treatment consists of ultraviolet disinfection, Hydrated Lime for pH adjustment, Phosphoric Acid for corrosion control and chlorine for disinfection.

## FACTS AND FIGURES

Our water system serves approximately 18,600 people through 6,000 service connections within the city limits. In addition, the city delivered on average 149,484 gallons per day to the Town of Amsterdam water district and 208,480 gallons per day to the Town of Florida water district serving their industrial & residential needs. The total water produced in 2020 was 1,967 billion gallons. The daily average of water treated and put into the distribution system was 4.76 million gallons per day, this equates to approximately 243 gallons per person per day. Our highest single day was 6.89 million gallons. This water was used for domestic and industrial use, to flush mains, fight fires and undetectable leakage. In 2020, commercial water customers within the City of Amsterdam were charged \$4.52 per 100 cubic feet (748 gallons), while the residential flat rate charge was \$423.89 per unit.

## ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the state regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, total haloacetic acids, radiological contaminants, and synthetic organic compounds. None of the following compounds were confirmed in 2020 samples of your drinking water: Total Coliform, Volatile Organic Compounds, and the following Inorganic Compounds: Arsenic, Cadmium, Chromium, Mercury, Selenium, Fluoride, Silver, Antimony, Beryllium, Sulfate, Thallium, Nitrate, Nickel and Cyanide. The table presented depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once a year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, is more than a 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 EPA's Safe Drinking Water Hotline (800-426-4791) or the Herkimer District Health Department at 315-866-6879.

As the state regulations require, we routinely test your drinking water for numerous contaminants. Bacteriological and total coliform testing is performed a minimum of 20 times per month and routine physical and chemical testing is performed everyday, as often as

every four hours. Turbidity and chlorine residual monitoring is performed continuously, using automated in-line measuring devices.

## WHAT DOES THIS INFORMATION MEAN?

We have learned through our testing that some contaminants have been detected. By sampling we continue to monitor the water quality. All tests indicated no presence of Coliform Bacteria in any of the distribution samples tested. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

## SYSTEM IMPROVEMENTS

- An upgrade to our controls computer system was made in 2020 affording us better real time monitoring and control of our facilities, water quality and water storage.
- The rehabilitation and painting of our water tanks at Locust Avenue and near Teeler School is primarily complete with a little more work left to do in the spring of 2021.
- Design upgrades related to the optimization of our corrosion control techniques are nearing completion and implementation remains a focus in 2021 with completion expected in 2022.

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

During 2020, our system was in compliance with all applicable state drinking water operating, monitoring and reporting requirements regarding: treatment techniques, filtration and disinfection, monitoring our drinking water and reporting any violations. If you have any questions, please contact: Randy Gardinier @ 518-843-3009 or the New York State Department of Health, Herkimer District Office @ 315-866-6879.

## 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 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).