

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 effect 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

CLOSING

The City is proud to report that there were no contaminant or turbidity level violations for 2021. This is an indication of the dedication and experiences of the staff and management at the water treatment facility, which involves continuous operation 365 days per year.

On behalf of myself, the operators and staff we thank you for allowing us to continue to provide you with a safe quality water this year. We ask that all our customers help us protect and conserve our water sources, which are the heart of the community.

The Amsterdam Water Treatment Plant and Source of Supply personnel are professionally skilled, and receive ongoing training to remain licensed by the New York State Department of Health.

Through the continued support of the Mayor and the members of the Common Council, we will continue to do our best to provide you with a safe quality drinking water. We continually strive to improve our water quality by improving our treatment processes and by implementing water system improvement projects. This water supply statement is being prepared for our customers in accordance with New York State Public Health Law. Please share this information with all other people who drink this water and those who may not have received this notice directly. Example: tenants, patients, schools and businesses.

Additional copies of this report may be obtained by contacting us.

This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua de beber. Tradúzcalo ó hable con alguien que lo entienda bien.



Please call our office at 518-843-3009 if you have any questions.

Randy Gardinier, Chief Plant Operator

flocculating 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 152,952 gallons per day to the Town of Amsterdam water district and 196,408 gallons per day to the Town of Florida water district serving their industrial & residential needs. The total water produced in 2021 was 1.844 billion gallons. Our highest single day was 6.58 million gallons. This water was used for domestic and industrial use, to flush mains, fight fires and undetectable leakage. In 2021, commercial water customers within the City of Amsterdam were charged \$4.53 per 100 cubic feet (748 gallons), while the residential flat rate charge was \$425.15 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 2021 samples of your drinking water: Volatile Organic Compounds, Synthetic Organic Chemicals, and the following Inorganic Compounds: Arsenic, Cadmium, Chromium, Mercury, Selenium, Fluoride, Silver, Antimony, Beryllium, Iron, 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 a minimum of 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. Through sampling we continuously monitor the water quality. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

SYSTEM IMPROVEMENTS

- Replacement of deteriorating 24" and 30" piping at our pump station was completed.
- Regeneration and replacement of carbon was completed in contactor #3.
- Disassembly, cleaning and inspection of clarifier #6 was completed with subsequent clarifiers projected in upcoming years.
- Multi-year project of rebuilding of filter underdrains was substantially completed.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS ?

During 2021, our system was in compliance with all applicable state drinking water operating, monitoring and reporting requirements regarding: filtration, 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).

AMSTERDAM WATER TREATMENT PLANT

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Amsterdam, New York 12010

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AMSTERDAM WATER TREATMENT PLANT



2022

Annual Report
for 2021

Drinking Water Quality

250 Brookside Avenue
Amsterdam, New York 12010

Public Water Supply
ID#NY2800136

ADDITIONAL INFORMATION FOR LEAD

The City of Amsterdam Public Water Supply has found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The primary source of lead exposure for most children is lead-based paint. Other sources of lead exposure include lead-contaminated dust or soil, and some plumbing materials. Lead is found in some toys, some playground equipment, some children's metal jewelry, and some traditional pottery. Although most lead exposure occurs when people eat paint chips and inhale dust, or from contaminated soil, exposure to lead can come from lead in drinking water. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1988 are more likely to have lead pipes or lead solder. However, new homes are also at risk: even legally "lead-free" plumbing may contain up to 0.25% lead on a weighted average. The most common is with brass or chrome-plated brass faucets and fixtures which can leach lead into the water, especially hot water. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. If you are concerned about lead exposure, parents should ask their health care providers about testing children for high levels of lead in the blood.

1. Run your water to flush out lead. Run water for 15-30 seconds or until it becomes cold or reaches a steady temperature before using it for drinking or cooking if it hasn't been used for several hours. This flushes water containing lead from the pipes.
2. Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
3. Do not boil water to remove lead. Boiling water will not reduce lead.
4. Replace your plumbing fixtures if they are found to contain lead. Plumbing materials including brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law previously allowed end-use brass fixtures, such as faucets, with up to 8 percent lead to be labeled as "lead free." As of January 4, 2014, end-use brass fixtures, such as faucets, fittings and valves, must meet the new "lead-free" definition of having

no more than 0.25 percent lead on a weighted average. Visit the National Sanitation Foundation website at: http://www.nsf.org/newsroom_pdf/Lead_free_certification_marks.pdf to learn more about lead-containing plumbing fixtures and how to identify lead-free certification marks on new fixtures.

5. Use bottled water or use a water filter. If your home is served by a lead service line, and/or if lead containing plumbing materials are found to be in your home, you may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or visit <http://www.nsf.org/consumer-resources/what-is-nsf-certification/faucets-plumbing-certification/lead-older-homes>, for a consumer guide of approved water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality. Any measure you take to reduce your exposure to lead should be continued until the lead source(s) has been minimized or eliminated.

Should you test your water for lead?

If lead-containing plumbing materials are identified in your home, you may want to consider testing your water for lead to determine how much lead is in your drinking water. Call us at 518-843-3009 to find out how to get your water tested for lead. If you are interested in finding out if you have lead service line and if so, being put on a waiting list to participate, please let us know and we can determine your eligibility. You may also call 518-402-7650 or visit the following website to participate in a free testing program offered through the New York State Department of Health. https://health.ny.gov/environmental/water/drinking/lead/free_lead_testing_pilot_program.htm

Should your child be tested for lead?

New York Public Health Law requires primary health care providers to screen each child for blood lead levels at one and two years of age as part of routine well-child care. In addition, at each routine well-child visit, or at least annually if a child has not had routine well-child visits, primary health care providers assess each child who is at least six-months of age, but under six years of age, for high lead exposure. Each child found to be at risk for high lead exposure is screened or referred for lead screening.

If your child has not had routine well-child visits (since the age of one year) and you are concerned about lead exposure to your child, contact The Montgomery County Public Health Department at 518-853-3531 or your healthcare provider to find out how you can get your child tested for lead.

To find out if you have a lead service line to your home, you can find where the water line enters the building, generally through the basement wall. Lead service lines are generally soft and a dull grey in color. You can identify them by carefully scratching them with a key. If the pipe is made of lead, the area you scratched will turn a bright silver color. Do not use a knife or other sharp instrument and be careful to not puncture a hole in the pipe. NOTE: galvanized pipe can also be dull grey in color. A strong magnet will typically cling to galvanized pipes, but will not cling to lead pipes. We will be happy to have someone confirm your service line type and give you more information on testing.

What Happened? What is Being Done?

Testing revealed that our most current sampling, in September 2018, resulted in our 90th percentile sample being six parts per

billion over the action level of 15 parts per billion. For reference, one part per billion is equal to one penny in ten million dollars.

Lead enters drinking water primarily as a result of the corrosion or wearing away of materials containing lead in the water distribution system and household plumbing. These materials include lead based solder used to join copper pipe, brass and chrome plated brass faucets and in some cases pipes made of lead that connects houses and building to water mains.

Along with this public education, we are in process of working to limit the aggressiveness of our water which leads to this corrosion.

In 2021, our consulting engineer proposed corrosion control optimization plans to the New York State Department of Health which are at the final approval stage. Bidding for this project is expected the spring of 2022, with construction likely beginning the summer of 2022. These upgrades will help to reduce the corrosivity of our water through the use of updated chlorination equipment, soda ash to replace our use of hydrated lime and sodium hydroxide as well as a proposal to use a different corrosion inhibiting chemical. We are encouraged that the resulting water quality improvements will be a positive step toward returning to compliance with the newly adopted lead and copper rule of the USEPA.

WHY SAVE WATER AND HOW TO AVOID WASTING IT ?

There are a number of reasons why it is important to conserve water:

- Saving water reduces the cost of energy required to pump water as well as costly treatment chemicals.
- 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 about 5 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Use low flow shower heads.
- Turn off the tap when brushing your teeth.
- Check every faucet in your house for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it 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 300 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 100,000 gallons a year.
- Commercial properties with water meters can 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.

TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	Regulatory Limit (MCL, AL, TT)	MCLG	Likely Source of Contamination
MICROBIOLOGICAL CONTAMINANTS							
Turbidity ¹ Filtration	No	Every 4 hrs.	0.02 - 0.30 range 99.46%-100% range	NTU	TT=95% of Samples <0.3 NTU		Soil Run-off
Distribution System Turbidity	No	Daily Avg.	0.12 - 2.4 range 0.29 - Average	NTU	5.0 (MCL)		Turbidity can interfere with disinfection and provide a medium of microbial growth.
Total Coliform Bacteria	No	11/2021	Positive	N/A	TT=2 or More Positive Samples		Naturally present in the environment.
ORGANIC AND INORGANIC CONTAMINANTS							
Copper ³	No	4/2018 9/2018	0.095 (90th percentile) Range = < 0.01 - 0.21 0.055 (90th percentile) Range = < 0.01 - 0.13	mg/l	1.3 (AL) (90th percentile)	1.3	Corrosion of household plumbing systems, Erosion of natural deposits; Leaching from wood preservatives.
Lead ³	YES	4/2018 9/2018	16 (90th percentile) Range = < 1 - 660 21 (90th percentile) Range = < 1 - 140	ug/l	15 (AL) (90th percentile)	0	Corrosion of household plumbing systems; Erosion of natural deposits.
Barium	No	2/2021	0.0067	mg/l	2.0	2.0	Erosion of natural deposits.
Chloride	No	2/2021	10.2	mg/l	250	N/A	Naturally occurring or indicative of road salt contamination
Manganese	No	2/2021	8.9	ug/l	300	N/A	Naturally occurring
Total Organic Carbon	No	Monthly	Compliance Ratio Range 1.26 - 1.63	-	TT	Compliance Ratio ≥ 1	Naturally present in environment
Odor	No	2/2021	1 unit	units	3	N/A	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources.
Sodium	No	2/2021	4.39	mg/l	See likely source of contamination.	N/A	Natural occurring; Road salt; Water softeners; Animal waste. Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
Zinc	No	2/2021	0.0053	mg/l	5.0	N/A	Natural occurring; mining waste
Sulfate	No	2/2021	5.81	mg/l	250	N/A	Natural occurring
Chlorite	No	Quarterly Samples	Range = <0.010 - 0.014	mg/l	1	0.8	By-product of drinking water disinfection at treatment plants using chlorine dioxide
DISINFECTION BY PRODUCTS							
Total Trihalomethanes ²	No	Quarterly Samples	78.3 highest LRAA Range 45.2-100	ug/l	80 ug/l	N/A	By-products of drinking water chlorination. TTHM's are formed when source water contains large amounts of organic mater.
Total Haloacetic Acids ²	No	Quarterly Samples	52.13 highest LRAA Range 32.1-64.1	ug/l	60 ug/l	N/A	By-products of drinking water chlorination
Haloacetic Acids HAA6Br ²	No	Quarterly 2018	0.673 highest LRAA Range 0.346 - 1.295	ug/l	50	N/A	By-products of drinking water chlorination
Haloacetic Acids HAA9 ²	No	Quarterly 2018	29.255 highest LRAA Range 13.789 - 53.98	ug/l	50	N/A	By-products of drinking water chlorination
Chlorine Dioxide	No	Daily Samples	Range 50 - 150	ug/l	800 (MCL)	800 (MRDLG)	Water additive used to control microbes
Free Chlorine Residual Distribution System Entry	No	Every 4 hrs.	0.10 - 3.73 range	mg/l	4.0		Used in disinfection of drinking water.

Notes:

1 - Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. State regulations require that 95% of the turbidity samples collected have measurements below 0.30 NTU.
2 - The level presented represents the annual quarterly average calculated from the samples collected.
3 - The level presented represents the 90th 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. The 90th percentile is equal to or greater than 90% of the copper/lead values detected at your water system. In this case, 60 samples were collected at your water system in both April and September and the 90th percentile value was the value of the 54th highest sample. The action level for copper was not exceeded at any of the sites tested. In April, 2018 there were 7 sites and in September there were 9 sites which exceeded the action level (AL) for lead.

Definitions:

Action Level (AL): The level of concentration of a harmful or toxic substance or contaminant that when exceeded is considered sufficient to warrant regulatory or remedial action. Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's allow for a margin of safety. Maximum Residual Disinfective Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectant to control microbial contamination. Non-Detects (ND): Laboratory analysis indicates that the constituent is not present. Nephelometric Turbidity Unit (NTU): A measure of the clarity of the 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). Picocuries per liter (pCi/L): A measure of the radioactivity in water. Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water. Locational Running Annual Average (LRAA): The average results of samples taken from one location annually.