

Annual Drinking Water Quality Report for 2019
Amdur Park Water
Village of Woodbury
Program ID No. 3503570

INTRODUCTION

To comply with State and Federal regulations, the Amdur Park Water System is issuing this Annual Report describing the quality of your drinking water. The purpose of this 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 over 60 contaminants. We detected 14 of those contaminants, and only found one (1) of those contaminants at a level higher than the State allows. The contaminant is not physiologically harmful but is regulated because it has some aesthetically objectional characteristics and can cause staining. Our water temporarily exceeded a drinking water standard which we are rectifying by maintenance and/or replacement of manganese greensand filters. 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 your drinking water, please contact Michael Phillips, Water Administrator (845-928-9514 x1256). We want you to be informed about your drinking water. If you want to learn more, please attend any of the regularly scheduled Village Board meetings on the second and fourth Thursday of each month.

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 can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The Amdur Park Water supply is obtained from two rock wells within the system's service area. During 2019 the quantity available from the Village's two wells was adequate to supply the system. Prior to distribution the water is treated with potassium permanganate to enhance removal of iron, greensand filters to filter iron and remove manganese and by disinfection with chlorine to destroy any microorganisms that might find their way into the water supply.

SOURCE WATER ASSESSMENT

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water resource were evaluated. This state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to customers is, or will become contaminated. See "Table of Detected Contaminants" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from two drilled rock wells. The source water assessment has rated these wells as having a medium susceptibility to microbials and nitrates and petroleum products. These ratings are due primarily to the close proximity of SPDES permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and the low-level residential activity located in the assessment area. In addition, the wells draw from a confined aquifer with the estimated recharge area within the selected time of travel and the overlying soils may not provide adequate protection from potential contamination. While the source water assessment rates our wells as being susceptible to microbials, please note that your water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted in this report.

FACTS AND FIGURES

The water system serves a population of approximately 180 people through 49 service connections. The total amount of water produced in 2019 was 3,868,100 gallons. The daily average of water treated and pumped into the distribution system was 9,613 gallons per day. Our highest single day was 25,500 gallons per day. The amount of water delivered to customers was 3,403,015 gallons. The total used for filter backwash in treatment of the supply was 359,390 gallons. This leaves an unaccounted water of approximately 105,695 gallons or 290 gallons per day (2.73%) which can be attributed to watermain breaks, hydrant flushing, normal system losses, inaccuracies of water meters and other un-metered use. In 2019, the annual average water charge for a typical user was \$120.

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, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The table presented 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 Orange County Health Department at (845-291-2331).

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Inorganic Contaminants							
Barium	No	9/20/2019	0.0208	mg/l ¹	2.0	MCL=2.0	Erosion of natural deposits.
Chloride	No	9/20/2019	83.2	mg/l	N/A	MCL=250	Naturally occurring
Iron (see Note 3)	No	9/20/2019	83.1	ug/l ²	N/A	MCL=300	Naturally occurring
Lead (see Note 4)	No	8/2019 9/2019	90 th = 4.0 (Range = ND to 4.75)	ug/l	0	AL=15.0	Corrosion of household plumbing systems
Copper (See Note 4)	No	8/2019 9/2019	90 th = 0.1020 (Range = ND to 0.1480)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems
Sulfate	No	9/20/2019	37.1	mg/l	N/A	MCL=250	Naturally occurring
Sodium	No	9/20/2019	17.9	mg/l	N/A	NOTE 5	Naturally occurring
Manganese (See Note 7)	Yes	9/20/2019	1,430	ug/l	N/A	MCL=300	Naturally occurring
Mercury	No	9/20/2019	0.2	ug/l	2.0	MCL=2.0	Erosion of natural deposits.
Nickel	No	9/20/2019	0.9	ug/l	N/A	N/A	Naturally occurring
Zinc	No	9/20/2019	0.0651	mg/l	N/A	MCL=5	Naturally occurring
Disinfection Byproducts							
Five Haloacetic Acids (HAA5)	No	8/29/2017	1.5	ug/l	N/A	MCL = 60	Byproduct of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes (TTHMs) see Note 6	No	8/29/2017	2.2	ug/l	N/A	MCL=80	Byproduct of drinking water disinfection needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter

Notes:

- 1 Milligrams per liter (mg/l) or parts per million (ppm).
- 2 Micrograms per liter (ug/l) or parts per billion (ppb).
- 3 Iron has no health effects. At 1,000 ug/l a substantial number of people will note the bitter astringent taste of iron. Also, at this concentration, it imparts a brownish color to laundered clothing and stains plumbing fixtures with a characteristic rust color. Staining can result at levels of 50 ug/l, lower than those detectable to taste buds. Therefore, the MCL of 300 ug/l represents a reasonable compromise as adverse aesthetic effects are minimized at this level. Many multivitamins may contain 3,000 or 4,000 micrograms of iron per capsule.
- 4 The level presented represents the 90th percentile of 10 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 lead and copper values detected at your water system. In this case, 10 samples were collected throughout the water system and the 90th percentile value was 4.0 ug/l for lead and 0.1020 mg/l for copper. The action levels for lead and copper were not exceeded in any of the sites tested.
- 5 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.
- 6 TTHM's - chloroform, bromodichloromethane, dibromochloromethane, and bromoform
- 7 The Food and Nutrition Board of the National Research Council determined an estimated safe and adequate daily dietary intake of manganese to be 2,000-5,000 micrograms for adults. However, many people's diets lead them to consume even higher amounts of manganese, especially those who consume high amounts of vegetable or are vegetarian. The infant population is of greatest concern. It would be better if the drinking water were not used to make infant formula since it already contains iron and manganese. Excess manganese produces a brownish color in laundered goods and impairs the taste of tea, coffee, and other beverages. Concentrations may cause a dark brown or black stain on porcelain plumbing fixtures. As with iron, manganese may form a coating on distribution pipes. These may slough off, causing brown blotches on laundered clothing or black particles in the water.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect 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.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

WHAT DOES THIS INFORMATION MEAN?

The table shows that our system uncovered a problem this year. Our water temporarily exceeded a drinking water standard for manganese. The duration of the violation is undetermined. The Food and Nutrition Board of the National Research Council determined an estimated safe and adequate daily dietary intake of manganese to be 2,000-5,000 micrograms for adults. However, many people's diets lead them to consume even higher amounts of manganese, especially those who consume high amounts of vegetable or are vegetarian. The infant population is of greatest concern. It would be better if the drinking water were not used to make infant formula since it already contains iron and manganese. Excess manganese produces a brownish color in laundered goods and impairs the taste of tea, coffee, and other beverages. Concentrations may cause a dark brown or black stain on porcelain plumbing fixtures. As with iron, manganese may form a coating on distribution pipes. These may slough off, causing brown blotches on laundered clothing or black particles in the water. We are correcting this by maintenance and/or replacement of the appropriate filters.

It should be noted that the action level for lead was not exceeded in any of the samples collected. We are required to present the following 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. Village of Woodbury 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 2019, our system was in violation of exceeding a drinking water standard for manganese. Our system was in compliance with all other 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 microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

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 to get the most efficiency, 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 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.

WATER SUPPLY SECURITY

Since the terrorist attacks on September 11, 2001, customers have expressed concerns with the security of their water supply. The Environmental Protection Agency and the FBI have stated it's highly improbable for the nation's drinking water to be compromised by terrorists. Nevertheless, we have implemented heightened security measures. In 2019, the Village continued its review and implementation of cybersecurity measures. While we cannot disclose specific details, we can assure you we have strengthened the security of our water supply programs and law enforcement coordination. Security measures include:

1. Additional inspections of our system confirming locks, gates and fences are secure
2. Increased patrolling of our water supply facilities
3. Regular frequent sampling of our water supply and distribution system
4. Requesting public assistance in contacting police if suspicious individuals are seen near water facilities

As a first line of defense, we ask all of our customers to contact the Police Department at 845-928-2341 if you notice any suspicious activity in connection with any of the Village's water facilities (hydrants, reservoirs, wells, etc.)