

Annual Drinking Water Quality Report for 2017
Whitlock Farms Water Corp.
PO Box 5611
Cherry Hill, NJ 08034
(Public Water Supply ID# NY3503611)

Introduction

In April of 2017, New York American Water became the owner of the water supply. This year's report is being prepared by the Water Supply Operator, JCO, Inc., and Orange County Health Department.

To comply with State regulations, Whitlock Farms Water District, 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, we conducted tests for over 80 contaminants. We detected 4 of those contaminants, and only found 2 of those contaminants at a level higher than the State allows. As we told you at that time, our water temporarily exceeded a drinking water 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 Ryan Rysinger Vice President, JCO, Inc., at 845-888-5755; or Michael Nofi, Manager, Water Quality and Environmental Management, New York American Water at 516-632-2215. We want you to be informed about your drinking water.

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.

Our water system serves 32 homes in the Town of Mount Hope. Our water source is groundwater drawn from two 6-inch diameter cased drilled wells, each approximately 158 feet deep. The wells are drilled in an unconfined gravel aquifer. The well that is used almost exclusively produces 31 gallons per minute (gpm). The second (auxiliary) well, located about 100 feet from the main well, can supply 20 gpm. The wells pump water to a 10,000-gallon atmospheric storage tank. A 3 horsepower (HP) transfer pump and 1-1/2 HP transfer pump supply a 2,000-gallon pressure tank from the 10,000 gallon atmospheric tank. The 2,000 gallon pressure tank supplies the water distribution system through 6-inch diameter water mains. The main well, 10,000 gallon atmospheric storage tank, 2,000-gallon hydro-pneumatic pressure tank, and transfer pumps are located in a well house. The well house and auxiliary well are located off of Whitlock Road, north of the intersection of Whitlock Road at Sagamore Drive. The drinking water source is operating under a disinfection waiver, issued by the Orange County Department of Health. We use a treatment system called Triangular Wave to control the adverse aesthetic effects that can be caused by the presence of iron and manganese in our water. Triangular Wave is an electronic deposit control method based on frequency modulation technology. The electronic deposit control technology uses a single cable wrapped around a pipe. The cable is connected to an electronic unit that sends a complex, dynamic current with rapidly changing polarity, frequency and amplitude to produce an extremely small time varying magnetic field inside the pipe (the magnetic field is hundreds time weaker than a refrigerator magnet used in a kitchen). The induced, oscillating field produced the necessary molecular agitation for scale prevention and removal.

The quantity of water available from our wells during 2008 adequately met water supply demands. An average volume of approximately 9,500 gallons per day was withdrawn from the aquifers and approximately 9,500 gallons per day were delivered to the customers of Whitlock Farms Water Corp.

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The 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 consumers 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 wells. The source water assessment has rated these wells as having a medium-high susceptibility to microbials. This rating is due primarily to the close proximity of the low-level residential activity and the septic system that are located in the assessment area. In addition, the wells draw from fractured bedrock and the overlying soils are not known to provide adequate protection from potential contamination. While the source water assessment rates our wells as being susceptible to microbials, please note that our water is tested for bacteria on a monthly basis and due to the negative results this supply has a waiver from disinfection.

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

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, lead and copper, volatile organic compounds, and synthetic organic compounds. The attached table 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 291-2331.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measure- ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Barium	No	8/24/15	0.05	mg/l	2	MCL = 2	Erosion of natural deposits.
Arsenic	No	8/24/15	7.8	ug/l	N/A	MCL = 10	Erosion of natural deposits.
Copper (See Note 1)	No	12/2017	90 th = 0.527 Range = 0.028 to 0.628	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems

Lead (See Note 2)	No	12/2017	90 th = 4.8 Range = ND to 13.4	ug/l	0	AL = 15	Corrosion of household plumbing systems
Nickel	No	8/24/15	0.94	ug/l	100	MCL = 100	Erosion of natural deposits
Total Coliform Bacteria (see note 3)	No	7/12/17 & 11/15/17	1 positive sample each day	N/A	0	TT = 2 or more positive samples / month	Naturally present in the environment
Radium 226 & 228	No	9/26/14	1.6	pCi/l	0	MCL = 5	Erosion of natural deposits
Iron	YES	2017	Ave = 795 Range 570 – 950	ug/l	N/A	MCL = 300	Naturally Occurring
Manganese	YES	2017	Ave = 211 Range 110 - 498	ug/l	N/A	MCL = 300	Naturally Occurring

Notes:

1 – The level presented represents the 90th percentile of the 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 copper values detected at your water system. In this case, ten samples were collected at your water system and the 90th percentile value was the second highest value (0.527 mg/l). The action level for copper was not exceeded at any of the sites tested.

2 – The level presented represents the 90th percentile of the ten samples collected. The action level for lead was not exceeded at any of the sites tested.

3 – The required number of repeat samples were collected for each of the positive coliform samples collected during 2017, all repeat samples were negative for coliform; therefore, these samples were never confirmed. It must also be noted that this supply was on a boil water order during these times.

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 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.

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).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

What does this information mean?

We have learned through our testing that some other contaminants have been detected. Although arsenic was detected below the MCL, it was detected at **7.2 ug/l**, which is greater than one-half of the MCL. Therefore, we are required to present the following information on arsenic in drinking water:

“NYS and EPA have promulgated a drinking water arsenic standard of 10 parts per billion. While your drinking water meets the standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effect of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.”

Is our water system meeting other rules that govern operations?

This supply has also been in violation since 2006 for diminished water quality. The standards for Iron, Manganese and Turbidity have been exceeded numerous times since 2006 (see health effects language below).

Turbidity

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Iron

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.

Manganese

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 peoples 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.

***Lead**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women 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. Wurtsboro Village 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>.

***Copper**

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.

Do I Need to Take Special Precautions?

Although our drinking water met or exceeded state and federal regulations, 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?

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 firefighting 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.

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.