Annual Drinking Water Quality Report for 2015
Willard Water District – NY4901200
1435 Prospect Street
Willard, NY 14548

INTRODUCTION

To comply with State regulations, Willard 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.. 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 Robert Stapleton @ 607-869-9326. 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, 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.

Our water system purchases water from the Willard Drug Treatment Campus. The total population served is approximately 600 individuals. The source is Surface water drawn from Seneca Lake. The water is filtered by rapid sand filters and disinfected with chlorine prior to distribution. Potassium permanganate is used as a control for zebra mussels during the summer and a coagulant (Alum) is used to improve filtering of the water supply.

NYS Swap Assessment

The NYS DOH has evaluated this PWS's susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meet all applicable standards.

The Assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for protozoa, phosphorous, DBP precursors and pesticides contamination. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality based on their density in the assessment area. However, it appears that the total amount of wastewater discharged to surface water in this assessment area is high enough to further raise the potential for contamination (particularly for protozoa) . There is also noteworthy contamination susceptibility associated with other discrete contaminating sources and these facility types include: landfills and RCRA.

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, 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 Seneca County Health Department at 315-539-1945.

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, and synthetic organic compounds. None of the compounds we analyzed for were detected in your drinking water.

Table of Detected Contaminants

Contaminant	Violation Yes/no	Date of Sample	Level Detected (Avg./Max)	Unit Measure	MCLG	Regulatory Limit (MCL,TT, or AL)	Likely Source of Contamination
Turbidity							
Distribution System	No	6/15/15	0.36	NTU1	<5.0	5.0	Soil Runoff
Filter Performance	No	7/3/15	0.30	NTU	<0.5	0.5	Soil Runoff
Inorganics							
Barium	No	11/5/15	0.028	Mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries Erosion of natural deposits
Chromium	No	11/5/15	2.0	Ug/L	100	100	Discharge from steel and pulp mills; Erosion of natural deposits
Nitrate	No	11/5/15	0.40	Mg/L	N/A	10 mg/L	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Sodium	No	11/5/15	75	Mg/L	N/A	See health effects[2]	Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets.
Lead	No	9/12/14	0.0035[3] ND – 0.0035 (range)	Mg/L	AL = .015	0	Corrosion of household plumbing systems: Erosion of natural deposits
Fluoride	No	9/2/14	0.12	Mg/L	2.2	2.2	Naturally occurring
Nickel	No	9/2/14	0.0012	Mg/L	N/A	N/A	Naturally occurring
Copper	No	9/2/14	0.067[3] 0.003-0.067 (range)	Mg/L	AL = 1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Selenium	No	9/2/14	1.4	Ug/L	50	50	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
m/p xylene	No	5/8/13	1.3	Ug/L	N/A	5	Leaks from gasoline tanks; Discharge from petroleum factories. Leaching of solvent from lining of potable water tanks.
o-xylene	No	5/8/13	0.5	Ug/L	N/A	5	Leaks from gasoline tanks; Discharge from petroleum factories. Leaching of solvent from lining of potable water tanks.
Total Organic Carbon (TOC)	No	7/3/14	2.6	Mg/L	N/A	TT	Naturally Occuring Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
Disinfection By-products Total Trihalomethanes (WDTC) 2 Sites	No	1 sample /qtr @ 2 sites	Site 1 72.25 – RAA 52-97 (range) Site 2 65.25 - RAA 54-74 (range)	Ug/L	0	80	By–product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Total Haloacetic Acid (WDTC) 2 Sites	No	1 sample/ qtr @ 2 sites	Site 1 19.75 – RAA 13-22 (range) Site 2 10.92 – RAA 1.2-28 (range)	Ug/L	0	60	By-product of drinking water disinfection needed to kill harmful organisms
Disinfection By-Products (Willard WD)	No	1 sample/qtr	THM 62.57 – RAA 33.2-110 (range) HAA 21.67 – RAA 18-23.4 (range)	Ug/L	0	80 60	By–product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Radiological							

Gross Alpha/ Beta	No	9/2/14	ND	pCi/L	0	15 piC/L	Decay of natural deposits and man-made emissions.
Radium 228	No	9/2/14	ND	piC/L	0	5	Erosion of natural deposits
Radium 226	No	9/2/14	ND	piC/L	0	5	Erosion of natural deposits
Uranium	No	7/18/06	0	piC/L	0	15	Erosion of natural products

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. Our highest single turbidity measurement for the year occurred on July 3, 2015 (0.0.30 NTU). State regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU.

2 – 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.

3 – This level represents the 90th percentile.

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.
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 to one trillion parts of liquid (parts per trillion - ppt).
Picograms per liter (pg/l): Corresponds to one part per of liquid to 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.
RAA: Running Annual Average

WHAT DOES THIS INFORMATION MEAN?

As you can see by the 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.

Lead

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. Willard Drug Treatment Center 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 2015, our system was in compliance with applicable State drinking water monitoring requirements.

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).

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

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

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 an 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.

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. Please call our office if you have questions.