

# Annual Drinking Water Quality Report for 2016

## Westmoreland Water District No. 1

P.O. Box 310 - Westmoreland, NY 13490

(Public Water Supply ID# NY3202416)

### INTRODUCTION

To comply with State regulations, Westmoreland Water District No.1 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 tap water met all State drinking water health standards. 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 Theodore Flint, Water Plant Operator, 315-853-1746. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Town Board meetings. The meetings are held on the Second Monday of each month, at the Westmoreland Town Hall, at 6:30 PM.

### 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 that 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 550 residents through 249 service connections. We also serve the Westmoreland Central School District, the NYS Thruway Rest Area and several homes (25 people) outside the water district. Our water source is from two groundwater wells, twenty-eight and thirty feet deep, located west of the Town Hall on Station Road. The water is treated with chlorine and filtered prior to being pumped throughout the system and to the 300,000-gallon water storage tank located just north of the NYS Thruway.

### SOURCE WATER ASSESSMENT INFORMATION

A Source Water Assessment has been completed for the WESTMORELAND WD NO 1 Water System. Possible and actual threats to drinking water source(s) 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 source(s). 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. The Source Water Assessment Program (SWAP) is designed to compile, organize and evaluate information to make better decisions regarding protecting sources of public drinking water. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted above.

The land uses around the WESTMORELAND WD NO 1 Water System sources were rated for their potential to cause contamination to the source. The source was considered at a low risk for every contaminant category. When combined with a low risk of contamination from discrete sources and a high natural sensitivity based on soils, surficial geology, aquifer information and bedrock geology, this created a medium high susceptibility for the source to contamination. See section "*Are there contaminants in our drinking water?*" 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.

Based upon the SWAP Report determinations, good judgment should be used and caution should be exercised when determining placement of certain materials, actions and facilities, including septic systems, high-risk businesses or chemical storage near the source(s). We work hard to ensure that the source of water for our system is protected from contamination.

### GROUNDWATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER (GWUDI) INFORMATION

From 2003-2005, the Oneida County Health Department conducted a study of our water system to determine if our source was under the direct influence of surface water. Based upon the data collected (e.g. temperature, conductivity, and precipitation), geology, construction methods, sample results and soils, the OCHD determined that the water source for the water system demonstrates



characteristics of a groundwater source that is under the direct influence of surface water (GWUDI). Therefore, we have been utilizing (since October 2008) a filtration system to ensure compliance with the requirements and continued safe water service to our customers.

### **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, radioactive contaminants, disinfection byproducts, volatile organic compounds, 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, may be more than one year old.

It should be noted that all drinking water, including bottled drinking water, might 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 Oneida County Health Department at 315-798-5064.

<b>TABLE OF DETECTED CONTAMINANTS</b>							
<b>Contaminant</b>	<b>Is System in Violation?</b>	<b>Date of Sample</b>	<b>Level Detected Average or Maximum (Range)</b>	<b>Unit Measurement</b>	<b>MCLG / MRDLG</b>	<b>Regulatory Limit (MCL, MRDL, TT or AL)</b>	<b>Likely Source of Contamination</b>
<b>Radioactive Contaminants</b>							
Gross alpha activity (including radium – 226 but excluding radon and uranium)	No	12/14	2.6	pCi/l	0	MCL = 15	Erosion / Decay of natural deposits.
Beta particle and photon activity from manmade radionuclides	No	12/14	3.07	pCi/l	0	MCL = 50 <sup>(1)</sup>	Erosion / Decay of natural deposits.
Radium – 226	No	12/14	0.10	pCi/l	0	MCL = 5	Erosion / Decay of natural deposits.
Radium – 228	No	12/14	1.21	pCi/l	0	MCL = 5	Erosion / Decay of natural deposits.
<b>Physical Parameters</b>							
Turbidity (EP) <sup>(2)</sup>	No	8/2/2016	1.14 (highest single measurement)	NTU	N/A	TT = <1.0 NTU	Soil runoff, particulates in water
Turbidity (EP) <sup>(2)</sup>		All Months	100% ≤ 1.0 (lowest monthly percentage of samples meeting specified limits)			TT = 95% of samples <1.0 NTU	
<b>Inorganic Contaminants</b>							
Barium	No	3/15	0.076	mg/l	2	MCL = 2	Erosion of natural deposits.
Copper	No	9/16	0.173 <sup>(3)</sup> (range = 0.031 – 0.173)	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead	No	9/16	2.76 <sup>(4)</sup> (range = ND – 2.92)	ug/l	0	AL = 15	Corrosion of household plumbing systems, Erosion of natural deposits.
Nickel	No	11/14	1.1	ug/l	10	MCL = 10	Erosion of natural deposits.
Nitrate	No	5/16	2.79	mg/l	10	MCL = 10	Runoff from fertilizer use; erosion of natural deposits.
<b>Disinfectants</b>							
Chlorine Residual	No	Daily / Monthly	0.77 <sup>(5)</sup> (range = 0.6 – 1.0)	mg/l	N/A	MRDL = 4 <sup>(6)</sup>	Water additive used to control microbes.

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Contaminant	Is System in Violation?	Date of Sample	Level Detected Average or Maximum (Range)	Unit Measurement	MCLG / MRDLG	Regulatory Limit (MCL, MRDL, TT or AL)	Likely Source of Contamination
<b>Disinfection Byproducts</b>							
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid)	No	8/16	3.4	ug/l	N/A	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane and bromoform)	No	8/16	7.0	ug/l	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter

### Notes:

- 1 - The State considers 50 pCi/l to be the level of concern for beta particles.
- 2 - **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 entry point (pre-distribution system) turbidity measurement (1.41 NTU) for the year. State regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 1.0 NTU. Two samples out of 365 samples collected for the calendar year 2016 were above the 1.0 standard**
- 3 - The level presented represents the 90<sup>th</sup> percentile of the five (5) 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, five (5) samples were collected at your water system and the 90<sup>th</sup> percentile value was the average of the two highest values. The action level for copper was not exceeded at any of the sites tested.
- 4 - The level presented represents the 90<sup>th</sup> percentile of the five (5) samples collected. The action level for lead was not exceeded at any of the sites tested.
- 5 - The levels presented represent the average and range of the levels reported on the monthly microbiological sampling reports.
- 6 - Value presented represents the Maximum Residual Disinfectant Level (MRDL) which is a level of disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. MRDLs are currently not regulated but in the future they will be enforceable in the same manner as MCLs.

### Definitions:

<b>ACTION LEVEL</b>	<b>AL</b>	The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.
<b>MAXIMUM CONTAMINANT LEVEL</b>	<b>MCL</b>	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.
<b>MAXIMUM CONTAMINANT LEVEL GOAL</b>	<b>MCLG</b>	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.
<b>MAXIMUM RESIDUAL DISINFECTANT LEVEL</b>	<b>MRDL</b>	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.
<b>MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL</b>	<b>MRDLG</b>	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.
<b>MILLIGRAMS PER LITER</b>	<b>mg/l</b>	Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).
<b>MICROGRAMS PER LITER</b>	<b>ug/l</b>	Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).
<b>NON-DETECTED</b>	<b>ND</b>	Laboratory analysis indicates that the constituent is not present.
<b>TREATMENT TECHNIQUE</b>	<b>TT</b>	A required process intended to reduce the level of a contaminant in drinking.
<b>PICOCURIES PER LITER</b>	<b>pCi/l</b>	A measure of the radioactivity in water.

### 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 New York State requirements.

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

Last year, our system was in general compliance with applicable State drinking water operating, monitoring and reporting requirements.

## **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.

### **LEAD INFORMATION**

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. Our water system 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>.

### **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?**

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 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 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 Heat Tape to protect your pipes from freezing. This will save water AND protect septic systems from overuse.
- If you have a meter, 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.