

**Annual Drinking Water Quality Report for 2017**  
**Oakridge Water System**  
**11 Main Street South Salem, NY**  
**(Public Water Supply ID# 5918395)**

**INTRODUCTION**

To comply with State regulations, Oakridge Water, 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 except for THMs. As we told you at that time, our water temporarily exceeded a drinking water standard and we have modified our treatment processes to rectify the problem. 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 VRI Environmental Services at (845) 677-3839. 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 held on the second and fourth Monday of the month at 7:30 pm at the Town House.

**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 serves approximately 895 people with approximately 328 service connections. Our water source is groundwater drawn from five drilled wells located within the property boundaries of the Oakridge community along Oakridge Drive. The water is pumped from the wells and passes through two mixed media pressure filters then through two greensand filters to reduce iron and manganese. The water is then disinfected with sodium hypochlorite (a 15 % chlorine solution) and fills the 95,000-gallon storage tank. The system is automated to run a booster pump on variable speed that fluctuates with usage. As the water is consumed, the pressure in the system drops, and in turn, ramps up the speed of a booster pump that replenishes the pressure in the distribution system. Automatic controls maintain the proper levels within the storage and pressurized distribution systems.

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 source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from five drilled wells. The source water assessment has rated these wells as having a medium-high susceptibility to microbials, nitrates, industrial solvents, and other industrial contaminants. These ratings are due primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) to the wells and the associated industrial and low intensity residential activity in the assessment area, such as fertilizing lawns. In addition, the wells draw from unconfined aquifers of unknown hydraulic conductivity and the overlying soils are not known to provide adequate protection for potential contamination. Please note that, while the source water assessment rates our wells as being susceptible to microbials, our water is disinfected to ensure that the finished water delivered to you meets New York State's drinking water standards for microbial contamination.

A copy of the assessment, including the map of the assessment area, can be obtained by contacting us, as noted below.

**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, synthetic organic compounds, and radiologicals. 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 Westchester County Health Department at (914) 813-5000.

**Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Max)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Gross alpha activity (including radium-226 but excluding radon and uranium) Entry Point	No	8/17/2016	1.51	pCi/L	0	15	Erosion of natural deposits
Beta particle and photon activity from man-made radionuclides Entry Point	No	8/17/2016	5.73	pCi/L	0	50 *	Decay of natural deposits and man-made emissions
Uranium Entry Point	No	8/17/2016	3.02	ug/L	0	30	Erosion of natural deposits
Contaminant	Violation Yes/No	Date of Sample	Level Detected (/Max)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Combined radium-226 and 228 Entry Point	No	8/17/2016	0.885	pCi/L	0	5	Erosion of natural deposits
Chloride	No	3/23/2015	139	mg/L	n/a	250	Naturally occurring or indicative of road salt contamination
Sulfate	No	3/23/2015	29.2	mg/L	n/a	250	Naturally occurring
Sodium	No	3/23/2015	80.91	mg/L	n/a	See Health Effects **	Naturally occurring; Road salt; Water softeners; Animal wastes;
Barium	No	3/23/2015	0.036	mg/L	2	2	Erosion of natural deposits.
Manganese	No	10/10/2017	20.9	ug/L	n/a	300	Naturally occurring; Indicative of landfill contamination.
Total Coliform	No	07/2017	1 positive sample	n/a	0	TT= 2 or more positive samples	Naturally present in the environment

**Footnotes:**

\* The State considers 50 pCi/L to be the level of concern for beta particles

\*\* 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 should not be used for drinking by people on moderately restricted sodium diets

**Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (90 <sup>th</sup> Percentile) (Range)	# of sites tested / # of sites exceeded AL (Range)	Unit Measurement	MCLG	Regulatory Limit (AL)	Likely Source of Contamination
Lead	No	7/25/2017	5.4 * (ND – 63.2)	10 sites tested / 1 site exceeded (63.2)	ug/L	n/a	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	No	7/25/2017	0.283** (0.0894 – 0.352)	10 sites tested / 0 sites exceeded	mg/L	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives;

**Footnotes:**

\* The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 10 samples were collected at your water system and the 90<sup>th</sup> percentile value was the second highest reported value. The action level for lead was exceeded at one of the sites tested at a level of 63.2 ug/l.

\*\* The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 10 samples were collected at your water system and the 90<sup>th</sup> percentile value was the second highest reported value. The action level for copper was not exceeded at any of the sites tested.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Highest LRAA) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Trihalomethanes 32 Split Rock  (LRAA)	Yes	Quarterly 2017	86.13*  (58.4 – 113)	ug/L	n/a	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids 32 Split Rock (LRAA)	No	Quarterly 2017	24.5*  (6.31 – 27.76)	ug/L	n/a	60	By-product of drinking water disinfection needed to kill harmful organisms.
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Highest LRAA) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Trihalomethanes 163 Laurel Ridge  (LRAA)	No	Quarterly 2017	57.83*  (5.73 – 84.1)	ug/L	n/a	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids 163 Laurel Ridge (LRAA)	No	Quarterly 2017	20.72*  (10.09 – 25.30)	ug/L	n/a	60	By-product of drinking water disinfection needed to kill harmful organisms.

**Footnotes:**

\* This level represents the highest locational running annual average calculated from the data collected

**Definitions:**

**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).

**Action Level (AL)** - The concentrations of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.

**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 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

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

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

**LRAA** – Locational Running Annual Average

**WHAT DOES THIS INFORMATION MEAN?**

The Table shows that our system uncovered some problems this year. In August 2017, we were issued a violation due to the Locational Running Annual Average (LRAA) for Total Trihalomethanes (TTHMs), at one of our two monitoring locations, exceeding the Maximum Contamination Level (MCL). Subsequent sampling in November 2017 indicated that the LRAA for both locations was below the MCL.

Potential Health Effects for Total Trihalomethanes (TTHMs) - Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

We have instituted some operational modifications such as additional flushing throughout the Oakridge and Conant Valley (drawing fresh water through the water mains to reduce water age, and reduce the formation of TTHM's) and changing the

primary oxidant utilized for iron and manganese removal from Sodium Hypochlorite (Chlorine) to Sodium Permanganate, while continuing to utilizing Sodium Hypochlorite for disinfection. Please note that for the last three (3) quarters of 2017, the levels of TTHMs at both locations were below the MCL.

We have learned through our testing that some other contaminants have been detected; however, these contaminants were detected below New York State Requirements. It should be noted that the action level for lead was exceeded in one 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. Oakridge Water is responsible for providing high quality drinking water, but can not 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 the 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 2017, our system was in compliance with 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?**

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 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.

#### **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 any questions.