

# ***Annual Drinking Water Quality Report for 2007***

## ***Sunset Ridge***

***Sunset Ridge Water District  
266 Titicus Road  
North Salem, New York 10560  
Public Water Supply ID# NY5905657***

### **INTRODUCTION**

To comply with State regulations, The Town of North Salem Town Board, who is commissioners of the Sunset Ridge 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. We detected that the water has exceeded the maximum contaminant levels (MCL) allowed for Gross Alpha, Radium 226, and Uranium. As we told you in the past, our water temporarily exceeds a drinking water standard. We continue to work with our engineer and hydro geologist to secure new water supply wells free of contaminants. These contaminants are discussed further in this report under the heading of "What Does This Information Mean. 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. 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, Water Operator, 845-677-3839. 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 serves 635 people through 94 service connections. Our water source is made up of four groundwater wells. Four wells feed into a 20,000-gallon detention tank and is then pumped up to three 20,000-gallon storage tanks. The water is disinfected with sodium hypochlorine. No other chemicals are used in the treatment process. The New York State Health Department has performed a Source Water Assessment, which follows. This discusses the susceptibility of contamination to your drinking water.

#### **Sunset Ridge Water District NY5905657**

#### **AWQR Summary**

The NYSDOH has completed a source water assessment for this system, based on available information. Possible and actual threats to the drinking water sources 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 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.

As mentioned before, our water is derived from 4-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 primarily due to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state government) to the wells and the associated industrial activity in the assessment area, as well as residential land use and associated activities, such as fertilizing lawns.

In addition the well has detection of salts and sulfates at levels consistent with a high chemical sensitivity and drawing from in confined aquifer, which is a shallow aquifer that occurs immediately below the ground surface and has no overlying protective layer for protection from potential sources of contamination and the hydraulic conductivity of the aquifer is unknown. While source water assessment rates out wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbials contamination. A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Town of North Salem.

## **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, 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 Westchester County Health Department at 914-813-5000.

**Table of Detected Contaminants**

| Contaminant                 | Violation Yes/No | Date of Sample | Level Detected Avg | Unit Measurement | MCLG  | Regulatory Limit MCL | Likely Source of Contamination  |
|-----------------------------|------------------|----------------|--------------------|------------------|-------|----------------------|---|
| Nitrate                     | No               | 2007           | 3.57               | mg/l             | 10    | 10 mg/l              | Runoff from fertilizer use; Leaching from septic tanks; Sewage; Erosion of natural deposits.            |
| Barium                      | No               | 2006           | 0.116              | mg/l             | 2.0   | n/a                  |   |
| Chloride                    | No               | 2006           | 190                | mg/l             | 250.0 | n/a                  |   |
| Iron                        | No               | 2006           | 0.024              | mg/l             | 0.3   | n/a                  |   |
| Sulfate                     | No               | 2006           | 23                 | mg/l             | 250.0 | n/a                  |   |
| Zinc                        | No               | 2006           | 0.257              | mg/l             | 5.0   | n/a                  |   |
| Asbestos                    | No               | 2005           | 0.14               | mg/l             |       | n/a                  |   |
| Sodium***                   | No               | 2006           | 71.8               | mg/l             | 270   | n/a                  |   |
| Copper**                    | No               | 2006           | 0.405              | mg/l             | 1.3   | 1.3                  | Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives. |
| Lead**                      | No               | 2006           | .005 ug/l          | ug/l             | 0     | .015 ug/l            | Corrosion of household plumbing systems; Erosion of natural deposits.                                   |
| Gross Beta                  | No               | 2007           | 13.75              | pCi/l            | 0     | 15 pCi/l             | Decay of natural deposits and man-made emissions.   |
| Gross alpha and radium 226  | Yes              | 2007           | 17.02              | pCi/l            | 0     | 15 pCi/l             | Erosion of natural deposits.  |
| Combined radium 226 and 228 | No               | 2007           | 4.57               | pCi/l            | 0     | 5 pCi/l              | Erosion of natural deposits.  |
| Radium 228                  | No               | 2007           | 4.10               | PCi/l            | 0     | 5 pCi/l              | Erosion of natural deposits.  |

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| Contaminant  | Violation Yes/No | Date of Sample | Level Detected Avg        | Unit Measurement | MCLG    | Regulatory Limit MCL | Likely Source of Contamination   |
|--|------------------|----------------|---------------------------|------------------|---------|----------------------|--|
| Uranium  |                  | 2007           | 32.47                     | Mg/l             | 0       | 30 mg/l              | Erosion of natural deposits.   |
| Total Trihalomethanes<br><i>Chlorodibromomethane</i><br><i>Bromodichloromethane</i><br><i>Chloroform</i> | No               | 2007           | 18.9<br>2.9<br>6.3<br>9.7 | ug/l             | 80 ug/l | 80 ug/l              | 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<br><i>Dichloroacetic Acid</i><br><i>Trichloroacetic</i>                                 | No               | 2007           | <6<br>3.9<br>2.0          | ug/l             | n/a     | 60 ug/l              | By-product of drinking water disinfections needed to kill harmful organisms.   |

**Notes:**

\*For individuals on severely sodium restricted diets, 20 mg/l, should not use this water for drinking

\*\* Lead and Copper: The level represents the 90<sup>th</sup> percentile. Ten samples were taken for lead and copper in 2006. All of the ten samples were below the AL.

**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.

**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).

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

**WHAT DOES THIS INFORMATION MEAN?**

As you can see by the table, we have learned through our testing that some contaminants have been detected. You will also see that we are in MCL violation for Radiologicals including Radium 226, Gross Alfa, and Uranium.

Radium – 226 and 228 comes from erosion of natural deposits. Some people who drink water-containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer. .

Gross alpha activity (including radium – 226 but excluding radon and uranium) comes from erosion of natural deposits. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.

Uranium is a naturally occurring metal, which is widespread in nature. Natural uranium is also released into the environment from various activities such as the use of phosphate fertilizers. Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of kidney disease.

Over the past few years the Town of North Salem has been working hard to secure a new water supply with wells free of contaminants. We continue to monitor the existing water supply on a quarterly basis for radiological contaminants.

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

During 2007, 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 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 questions.