

*Annual Drinking Water Quality Report for the Year 2006*  
*Village of Saugerties*  
*43 Partition Street*  
*Saugerties, New York 12477*  
*(Public Water Supply ID# 0122900)*

## **INTRODUCTION**

To comply with State and Federal regulations, the Village of Saugerties, will be issuing an annual 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. We are proud to report that our system has never violated a maximum contaminant level or any other water quality statement. 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 **THE Village of Saugerties Water Department at (845) 246-5516**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings held the 1<sup>st</sup> and 3<sup>rd</sup> Mondays of every month at 7:00pm. The meetings are held at the Village Hall located on 43 Partition Street in the Village of Saugerties.

## **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 source is surface water drawn from the Blue Mountain Reservoir, which is located along Reservoir Road, off County Route 36, in the Town of Saugerties. During 2006, our system did not experience any restriction of our water source. The water is pumped from the reservoir to the water filtration plant. After pH adjustments, filtration, corrosion control treatment, and disinfection the treated water enters the village's water distribution system, which includes a three (3) million gallon water storage tank.

## **FACTS AND FIGURES**

Our water system serves approximately 4,400 people served through 1,620 service connections in the Village of Saugerties and 4,900 people served through 1,960 service connections in the Town of Saugerties. The total amount of water produced in 2006 by the Village of Saugerties Water Treatment Plant was 290.6 million gallons. The daily average of water treated and pumped into the distribution system was 796,000 gallons per day. Our highest single day's usage (June 30, 2006) was 1,267,000 gallons. The amount of water delivered to village and town customers was 269.2 million gallons. This leaves an unaccounted for total of 21.3 million gallons or 7.4 %. This water was used to flush mains, fight fires, municipal use, recreation fields and ballparks, theft of service and leakage. In 2006, the Village of Saugerties water customers were charged \$2.18 per 100 cubic feet of water or \$2.91 per 1,000 gallons of water used.

## **ARE THERE CONTAMINANTS IN OUR DRINKING WATER?**

As the State regulations require, the Village of Saugerties routinely tests 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 monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data, though representative of water quality, is more than one year old.**

It should be noted that all drinking water, including bottled drinking water, may reasonably be 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 Ulster County Health Department at (845) 340-3150.

**Table of Detected Contaminants For 2006**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
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**Microbiological Contaminants**

Turbidity 1	No	6/29/06	1 1.000 NTU	NTU	N/A	TT=<5NTU	Soil Runoff
Turbidity 1	YES	6/06	95%	NTU	N/A	TT=95% of Samples, 0.3 NTU	Soil Runoff

**Inorganic Contaminants**

Copper	No	6/05	2 0.39	mg/L	1.3	AL=1.3	Corrosion of galvanized pipes; or erosion of natural deposits
Lead	No	6/05	3 3.0 ND – 4.0	ug/L	0	AL=15	Corrosion of household plumbing systems; or erosion of natural deposits
Nitrate	No	2/27/06	0.4	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks; Sewage; or erosion of natural deposits
Sulfate	No	2/27/06	11	mg/L	250	N/A	Naturally occurring.
Manganese	No	2/27/06	0.02	mg/L	0.3	N/A	Naturally occurring; or Indicative of landfill contamination.
Chloride	No	2/27/06	12	mg/L	250	N/A	Naturally occurring; Indicative of road salt Contamination
Sodium	No	2/27/06	4 7.4	mg/L	4 (see health effects)	N/A	Naturally occurring; Road Salt; Water softeners; Animal Waste
Zinc	No	2/27/06	<0.01	mg/L	5.0	N/A	Naturally occurring; or Mining wastes.

**Table of Detected Contaminants For 2006**

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**Disinfection By-products**

Total Trihalomethanes	No	Average 4x/year	5 17.4	ug/L	N/A	MCL= 80	By-product of drinking water chlorination
Haloacetic Acid (HAA5)	No	Average 4x/year	5 17.7	ug/L	N/A	MCL= 60	By-product of drinking water chlorination

**Disinfection By-products (Quarterly Sample Results)**

Disinfection By-products	Date 1 <sup>st</sup> Quarter	Result (ug/L)	Date 2 <sup>nd</sup> Quarter	Result (ug/L)	Date 3 <sup>rd</sup> Quarter	Result (ug/L)	Date 4 <sup>th</sup> Quarter	Result (ug/L)	Average 4X/year (ug/L)	Regulatory Limit (MCL, TT or AL)
Total Trihalomethanes	2/27/06	9.3	5/22/06	17.6	8/28/06	18.3	12/1/06	24.3	17.4	MCL= 80
Haloacetic Acid (HAA5)	2/27/06	8.3	5/22/06	18.9	8/28/06	19.4	12/1/06	24.1	17.7	MCL= 60

**Lead (Sampling Sites & Results)**

Lead	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
June 2005	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Lead	Site 11	Site 12	Site 13	Site 14	Site 15	Site 16	Site 17	Site 18 90%	Site 19	Site 20
June 2005	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0

**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 6/29/06 (1.000 NTU). Note: Our highest turbidity measurement of 1.000 NTU occurred a total of fifteen times in 6/06. The regulations require that 95% of the monthly combined turbidity samples, collected after the filters but before entering the distribution system, have measurements below 0.3 NTU. Although February 2005 was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation. Note: February has the fewest number of days of any month, so fewer samples were collected and analyzed. State regulations require that turbidity in the distribution system must always be below 5 NTU.

2 – The level presented represents the 90<sup>th</sup> percentile of the 20 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, 20 samples were collected in your water system and the 90<sup>th</sup> percentile (18<sup>th</sup> sample or site) value was the 0.39 mg/L value. The action level for copper was not exceeded at any of the sites tested.

3 – The level presented represents the 90<sup>th</sup> percentile of the 20 samples collected. 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 **lead values** detected at your water system. In this case, 20 samples were collected in your water system and the 90<sup>th</sup> percentile (18<sup>th</sup> sample or site) value was the 3.0 ug/L value. The action level for lead was not exceeded at any of the 20 sites tested.

4 – 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**.

5 – This level represents the running annual average calculated from data collected. Samples are collected quarterly from the drinking water distribution system. The highest quarterly sample results were collected 12/1/2006 and the results were 24.3 ug/L for TTHM, and 24.1 ug/L for the Haloacetic Acids (HAA5).

#### **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.

**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.

## **WHAT DOES THIS INFORMATION MEAN?**

As you can see by the table, our system had violation in June 2006 when the combined turbidity samples exceeded 0.3 NTUs in over 5% of the samples collected. A notice informing the public about this violation was published in the Post Star on August 3, 2006. 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. This violation did not pose a health risk and additional bacteriological samples were taken to protect the system users. Our system had no other violations.

## **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 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, don't flush and wait 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 can save more than 30,000 gallons a year.**
- ♦ Use your water meter to detect hidden leaks. Record your meter reading just before you go to bed and again the next morning before you use any water, if the water meter has recorded any usage you have a leak.

## **SYSTEM IMPROVEMENTS**

In 2006, The Village of Saugerties conducted a monthly employee safety-training program and upgraded the water treatment plant's sample data collection system, computer systems and internet capabilities, and monitored and maintained our security system, fences, gates and security lighting. These improvements will enhance our ability to monitor water quality parameters and make timely adjustments to the treatment processes, increase the accuracy of water meter readings, improve water treatment plant and reservoir security, and enhance fire protection to both the village and town customers. The Village of Saugerties worked with the New York Rural Water Association (NYRWA) to prepare a Source Water Protection Plan for the Village of Saugerties Public Water Supply. This plan will enable village and town officials to make informed planning and zoning decisions that protect this critical resource. A new 12" water main was installed at the Cantine Complex to improve fire flows to the high school, ice arena, and the Malden Water District. In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. In 2007, we will continue to update the water systems maps and generate global positioning information (GPI) for locating system mains, valves and fire hydrants. The Village will also evaluate the condition of water mains at various locations in the Village of Saugerties and apply for grants or low-interest loans to cover the replacement costs of this water infrastructure.

## **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community and our way of life. Please call our water treatment plant at (845) 246-5516 if you have questions.

**Saugerties Village Water District  
Blue Mountain Reservoir  
NY5503386  
AWQR Summary**

**The NYS DOH has completed a source water assessment for this water 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 could affect the source. 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. *While nitrates were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk. 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.***

This assessment found a moderate susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area does not increase the potential for contamination. The sole non-sanitary wastewater discharge in the assessment area is associated with the drinking water treatment plant and is downstream from the water plant intake. Consequently it does not contribute to source water contamination. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources such as mines. Finally, it should be noted that the high mobility of microbial contaminants in reservoirs results in this drinking water system’s raw water intake as having medium-high susceptibility ratings for protozoa and enteric bacteria and viruses.

Our water is filtered and disinfected to ensure that the finished water delivered into your home meets the New York State’s drinking water standards for microbial contamination.

County and state health departments may use this information to direct future source water protection activities. This may include water quality monitoring, resource management, planning, and education programs.

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

Village of Saugerties  
Village Hall  
43 Partition Street  
Saugerties, New York 12477  
(845) 246-2321