

*Annual Drinking Water Quality Report for 2008  
Village of Skaneateles  
46 E. Genesee St., Skaneateles, NY 13152  
Public Water Supply ID# NY3304331*

By Bob Lotkowitz, P.E.  
Director of Municipal Operations

We are pleased to present a summary of the quality of the water provided to you during the past year. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water source. This report also details where our water comes from, what it contains, and the risk water testing and treatment are designed to prevent. We are proud to report that last year, the water provided by the Village of Skaneateles Municipal Water system met all State drinking water health standards. We remain committed to providing you with the safest and most reliable water supply.

If you have any questions about this report concerning your drinking water, please contact Bob Lotkowitz at the Village of Skaneateles Department of Public Works office, phone #315-685-5977.

We encourage public interest and participation in our community's decisions affecting drinking water. Regular Municipal Board Meetings occur on the third Monday of each month, at 7:00 p.m. at the Village Office located at 46 E. Genesee Street, Skaneateles, NY. The public is welcome.

More information is available on the World Wide Web at <http://www.waterdata.com>.

### **WHERE DOES OUR WATER COME FROM?**

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.

### **FACT AND FIGURES**

The Village of Skaneateles water system serves the Town as well as the Village residents, a combined population of approximately 5,500. In 2008 our pumping figures showed a total of 226,994,000 gallons. Our daily average of water pumped into the distribution system is 625,053 gallons. Our highest single day, 4/21/08, was 854,100 gallons for 9.7 hours. The amount delivered to customers was 169,499,750 gallons. This leaves an unaccounted for total of 57,494,250 gallons. This water was used to flush hydrant mains, fight fires, unauthorized hydrant use, municipal use, system leakage and water main breaks. These 57 million gallons accounts for 25% of the total produced.

Our billing figures show that 70% of our customers in the Village use 800 Cu. Ft. of water per month at an average cost of \$223.44/yr.

### **VILLAGE OF SKANEATELES WATER SOURCE**

Our community water system receives its water from a surface water source, Skaneateles Lake. It is the fourth largest and third deepest of the Finger Lakes. It has a surface area of 13.6 square miles with a maximum depth of 300 feet. The source of water for the lake is its watershed. The watershed acreage calculated by the Geographic Information System (GIS) is 37,724 acres or 58.94 square miles. The water quality of Skaneateles Lake is ranked as one of the top ten lakes in the Country. The village is fortunate to have this lake as our surface water source.

The Village of Skaneateles takes its water directly from wet wells located in the City of Syracuse Gatehouse, Genesee Street in the Village of Skaneateles. It is then pumped from the Village Pump Station through a 12" dedicated water main to our reservoirs located on East Street in the Village. The water is then gravity fed into the distribution system of both the Village and Town water systems.

All the water pumped by the Village Pump Station is treated with chlorine and fluoride by the City of Syracuse prior to entering our water distribution system.

The NYS DOH has evaluated the Village of Skaneateles' source water susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized here. 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 the Village of Skaneateles. The City of Syracuse provides treatment and regular monitoring to ensure the water delivered to Village of Skaneateles meets all applicable standards.

This assessment found a moderate susceptibility to contamination for the Skaneateles Lake source of drinking water. The amount of pasture in the assessment area results in a high potential for protozoa contamination. No permitted discharges are found in the assessment area. There are no likely contamination threats associated with other discrete contaminant sources, even though some facilities were found in low densities.

## **FILTRATION WAIVER**

The Village of Skaneateles along with the City of Syracuse is currently operating under a filtration avoidance extension granted in June of 2004. The waiver has no termination date, and will remain in effect for as long as the City and Village comply with the conditions of the waiver. Since the Village is a filtration avoidance system, it is subject to recent USEPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2) treatment requirements. The Village reviewed LT-2 treatment options and is currently developing plans to meet the requirements of the new rule utilizing UV disinfection technologies

## **OVERVIEW, OPERATIONS IMPROVEMENT**

The Village Water Department replaced 1300 feet of 8-inch ductile iron waterline and three hydrants on Orchard Road between Genesee and Elizabeth Streets. In addition, the fixed-base automatic meter reading (AMR) system installation commenced in May 2008.

The AMR system will allow us to read water meters from a central location via radio signals. Meters would transmit a periodic signal and meters could be read without entering the customer's residence, walking by, or driving by the metered location. Meter reads could be performed in at an interval of as little as 15 minutes.

Since the system could provide periodic real-time reads, water leaks could be identified and corrected very early based on unusual or continuously high meter readings. The cost of leakage to the customer would, thus, be avoided. In addition, decreased leakage would conserve water and reduce the cost of energy for booster pump operation.

The Village Water Department continues to maintain, test and monitor the water distribution system to assure our customers that they are receiving the highest quality drinking water possible.

## **SECURITY**

Security for the pump station and associated facilities has been reviewed and updated over the past few years. To continually insure the safety of our water distribution, we have the following operational policies in place:

1. All structures are locked and security alarms are armed.
2. Security cameras are installed at the pump station .
3. Fencing is installed around the pump station.
4. Lighting is installed around all structures.
5. Photo I.D. is required for all employees.
6. Protocol has been established reporting and responding to threats and other emergencies.
7. Photo-to-Photo matching combined with log in and log out procedure has been put in place for all non-employees that need access to our reservoir facilities.
8. Emergency Water Response Plan was updated.
9. Vulnerability Assessment Report was updated for State and local Health Departments.

Although we have these previous measures in place and our structures are monitored by our local police department, we ask you to keep a watchful eye and report any suspicious activity.

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

As the State regulations require, we routinely test your drinking water for numerous contaminants. In 2008, the Village was required to test for Total Coliform, and lead and copper. The Village took eight lead and copper samples in 2008. We are also required to take monthly bacteria samples. The Village took thirty-six Coliform samples in 2008. These samples are taken to the City of Syracuse Gatehouse where they are transported to a certified lab to be tested for Total Coliform, as directed by the New York State Department of Health. Last year all bacteriological samples were found to be negative for Total Coliform. The results of all tests are available at the Village of Skaneateles Water Department Office, phone #315-685-5628.

In addition, the City of Syracuse tests the water entering the Gatehouse for all contaminants listed in the Federal Safe Drinking Water Act. These contaminants include: inorganic compounds, nitrate, nitrite, volatile organic compounds, synthetic organic compounds and radiological compounds. Refer to Detected Contaminants Table below compiled by the Syracuse Water Department. For more information on the Federal Safe Drinking Water Act, consumers are encouraged to call The Safe Drinking Water Hotline telephone number: 800-426-4791.

Drinking water, including bottled 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 Safe Drinking Water Hotline (1-800-426-4791) or the Onondaga County Health Department at 315-435-6600.

The tables presented below depict 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.

To understand the tables below, the following definitions will be helpful.

## GLOSSARY OF TERMS

**Action Level (AL):** The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

**n/a:** Not applicable.

**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 using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known health risk. MCLG's allow for a margin of safety.

**Maximum Residual Disinfectant Level (MRDL):** The highest level 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 Goal (MRDLG):** The level of 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.

**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).

**NTU:** Nephelometric Turbidity Unit; a measurement of the turbidity, or cloudiness of the water.

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

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

**nd:** Laboratory analysis indicates that the constituent is not present.

**Table of Detected Contaminants: City of Syracuse and Village of Skaneateles testing)**

Contaminant	Violation Yes/No	Date of Sample	Upper Bound Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity	No	2008 Daily	0.49 (See Notes 1,4,5)	NTU	n/a	5	Soil run off in lake water
Lead	No	8/21/08	4.7 (nd - 6.7) (See Notes 2,6)	ug/l	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	No	8/21/08	1.15 (.26 – 1.2) (See Notes 3,6)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Chlorine Residual	No	2008 Daily	1.42 (0.25 – 1.42) (Note 4,5)	mg/l	(MRDLG) 0	(MRDL) 4	By-product of drinking water chlorination

### Notes:

1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. State regulations require that turbidity must always be below 5 NTU. The levels recorded were well below the acceptable range allowed and did not constitute a treatment technique violation.
2. During 2008 we collected and analyzed 8 samples for lead. The upper bound level included in the table represents the average of the two highest levels detected. The action level for lead was not exceeded at any of the sites tested.
3. During 2008 we collected and analyzed 8 samples for copper. The upper bound level included in the table represents the average of the two highest levels detected. The action level for copper was not exceeded at any of the sites tested.
4. Test performed by the City of Syracuse.
5. Test samples taken at Entry Point of the system.
6. Test samples taken in the Distribution System.

**Table of Detected Contaminants: Disinfectant & Disinfection By-products  
(Village of Skaneateles testing)**

Total Trihalo Methanes **	No	8/17/07	30.15	ug/l	N/A	80	By-Products of Drinking water chlorination. TTHM's form when source water contains large amounts of organic matter.
Haloacetic Acids ***	No	8/17/07	19.0	ug/l	N/A	60	By-Products of drinking water chlorination.

\*\* **Total Trihalomethanes** – the combined concentration of the following four contaminants; Bromodichloromethane, Bromoform, Chloroform, and Dibromochloromethane.

\*\*\* **Haloacetic acids** – the combined concentration of the following five contaminants; Dibromo-, Dichloro-, Monobromo-Monochloro-, and Trichloro -, acetic acids.

**Table of Detected Contaminants: Skaneateles Lake source water (City of Syracuse testing)**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Barium	No	5/08	0.025	mg/L	2	2	Erosion of natural deposits
Chloride	No	5/08	17	mg/l	n/a	250	Natural deposits; road salts
Fluoride	No	Twice Daily	0.96 (0.62 – 1.40)	mg/l	n/a	2.2	Natural deposits; Water additive that promotes strong teeth; discharge from fertilizer
Nickel	No	5/08	1.2	ug/l	n/a	n/a	Erosion of natural deposits
Nitrate	No	5/08	0.64	mg/l	10	10	Runoff from land applied fertilizer and septic tanks; sewage; erosion of natural deposits
Sodium	No	5/08	8.6	mg/l	n/a	n/a*	Natural deposits; road salts; water softeners; animal waste
Sulfate	No	5/08	14	mg/l	n/a	250	Naturally occurring
Zinc	No	5/08	0.01	mg/l	n/a	5	Naturally occurring; mining waste

\* There is no MCL for sodium but water with more than 20 mg/l should not be used for drinking by people on severely restricted sodium diets; water with more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

**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.

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

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. Lead and copper measurements are required by NYSDOH every three years. During 2008 the Village Water Department completed lead and copper testing. Laboratory analysis of the drinking water has shown all results to be well below the action levels as set forth by the State Department of Health. The next required lead and copper testing is next scheduled for 2011.

**INFORMATION ON CRYPTOSPORIDIUM AND GIARDIA**

New York State law requires water suppliers to notify their customers about the risks of Cryptosporidium and Giardia. These pathogens are of concern because they are found in surface water and ground water under the influence of surface water

throughout the United States. Filtration and disinfection are the best methods for use against them, but 100% removal or inactivation cannot be guaranteed. Cryptosporidiosis and Giardiasis are intestinal illnesses caused by these microscopic parasites. Symptoms of infection include nausea, diarrhea, and cramps. Most healthy people can overcome the disease within a few weeks.

The City of Syracuse Water Dept. took a total of 44 *Cryptosporidium* and *Giardia* samples in 2008 representing water originating from Skaneateles Lake. Two Raw water samples (one from each intake) and one finished water sample was taken each month. In addition, quarterly sampling included two points in the distribution system. In 2008, there were no confirmed *Cryptosporidium* oocysts or *Giardia* cysts detected.

There have been no reports of health effects caused by *Cryptosporidium* or *Giardia* in Village potable water, and no analytical data to suggest that Village water customers are exposed to these microorganisms. However, the Village is subject to recent USEPA LT2 treatment requirements, which are expected to provide additional disinfection and protection from potential exposure to *Cryptosporidium* and *Giardia*. The Village has reviewed LT-2 treatment options and is developing plans to meet the requirements of the new rule by March 30, 2012.

FOR ADDITIONAL INFORMATION ON CRYPTOSPORIDIOSIS OR GIARDIASIS PLEASE CONTACT THE ONONDAGA COUNTY HEALTH DEPARTMENT AT 435-6600.

### **DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Although our drinking water met or exceeded state and federal requirements, 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 lamblia* and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

### **INFORMATION ON FLUORIDE ADDITION**

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. Fluoride is added to your water by the City of Syracuse Water Department before it is delivered to us. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires the City of Syracuse monitor fluoride levels on a daily basis. During 2008 monitoring showed fluoride levels in your water were in the optimal range 99.7 % of the time in Skaneateles water.

### **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.
- 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.
  - 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. 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.