

Annual Drinking Water Quality Report for 2007

Village of Skaneateles

46 E. Genesee St., Skaneateles, NY 13152

Public Water Supply ID# NY3304331

By John F. Hunt

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 John Hunt 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 2007 our pumping figures showed a total of 239,206,900 gallons. Our daily average of water pumped into the distribution system is 655,361 thousand gallons. Our highest single day, 6/27/07, was 917000 gallons for 10.8 hours. The amount delivered to customers was 180,073,603. This leaves an unaccounted for total of 59,133,297. This water was used to flush hydrant mains, fight fires, unauthorized hydrant use, municipal use, system leakage and water main breaks. These 59 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 \$206.04/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 five-year filtration avoidance extension that was granted in June of 2004. 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 is currently reviewing LT-2 treatment options and will be developing plans to meet the requirements of the new rule.

OVERVIEW

The Village Water Department added 1300 feet of 8-inch ductile iron waterline and three hydrants going north on Fennell Street from the Gateway Apartments to the northern Village line. A future connection to the proposed waterline at the eastern boundary of the Parkside subdivision is planned, which will provide a "looped" distribution system to the West Elizabeth Street water main at Orchard Street.

In addition, a fixed-base automatic meter reading (AMR) system is planned and installation will commence in May 2008. The AMR system will allow us, in the future, 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

An evaluation of the security for the pump station and associated facilities has been reviewed. As a result of this review, we have instituted new policies to further insure the safety of our water distribution system. New policies put into operation include:

1. All structures are locked and security alarms are armed.
2. Security cameras were installed at the pump station in 2007.
3. There is fencing installed around the pump station.
4. There is lighting 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. Completed a update on Emergency Water Response Plan.
9. Completed vulnerability assessment reports for State and local Health Departments.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. The Village is required to test for total coliform, chlorine residual, lead and copper, and turbidity. The Village took fifty-two chlorine residual and turbidity samples in 2005. We are also required to take monthly bacteria samples. The Village took thirty-six Coliform samples in 2007, plus a Coliform sample at each of two new water lines. These samples are taken to the City of Syracuse Gatehouse where they are transported to a certified lab to be tested for Total Coliform and *E. Coli*, as directed by the New York State Department of Health. Last year all bacteriological samples were found to be negative for Total Coliform and *E. Coli* bacteria. 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: Entry Point water (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	12/31/07	1.5 (See Note 1)	NTU	n/a	.5	Soil run off in lake water
Lead	No	8/11/05	3.6 (nd - 4.2) (See Note 2)	ug/l	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	No	8/11/05	1.05 (.24 - 1.2) (See Note 3)	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Chlorine Residual	No	2007 weekly	1.56 (0.20-1.56)	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 2005 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 2005 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.

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	5/07	0.023	mg/L	2	2	Erosion of natural deposits
Chloride	No	5/07	17	mg/l	n/a	250	Natural deposits; road salts
Fluoride	No	Daily	0.96 (0.08-1.18)	mg/l	n/a	2.2	Natural deposits; Water additive that promotes strong teeth; discharge from fertilizer
Nitrate	No	5/07	0.75	mg/l	10	10	Runoff from land applied fertilizer and septic tanks; sewage; erosion of natural deposits
Sodium	No	5/07	9.4	mg/l	n/a	n/a*	Natural deposits; road salts; water softeners; animal waste
Sulfate	No	5/07	15	mg/l	n/a	250	Naturally occurring
Zinc	No	5/07	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.

Table of Detected Contaminants: Radioactive Contaminants (City of Syracuse testing)

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Gross Alpha Emitters	No	2002 (2)	0.2	pCi/L (3)	0	15	Erosion of natural deposits.
Beta/photon Emitters	No	2002 (2)	0.2	pCi/L (3)	0	50 (see note 1)	Decay of natural and man-made deposits.
Strontium 90	No	2002 (2)	0.4	pCi/L (3)	0	8	Decay of natural deposits.
Tritium	No	2002 (2)	310	pCi/L (3)	0	20,000	Decay of natural deposits.

Notes:

1. The State considers 50 pCi/L to be the level of concern for beta particles
2. Next scheduled sample date: 2011
3. Picocuries per liter – measure of the radioactivity in water

Table of Detected Contaminants: Organic Contaminants (City of Syracuse testing)

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
None				ug/l	N/A		

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

Total Trihalo Methanes **	No	8/28/06	38.14	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	8/28/06	10.9	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.

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 2005 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 2008.

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).

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 47 *Cryptosporidium* and *Giardia* samples in 2005 representing water originating from Skaneateles Lake. Two Raw water samples (one from each intake) and one finished water sample was taken each month. An extra set of samples was taken in September 2005. Two additional Finished water sites were sampled quarterly (Feb, May, Aug, and Nov 2005). *Giardia* was not detected in any of the water samples. However, in the month of September, *Cryptosporidium* was detected in one of the Raw water samples. No *Cryptosporidium* or *Giardia* was detected in any of the City of Syracuse's Finished water samples.

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 is currently reviewing LT-2 treatment options and will be developing plans to meet the requirements of the new rule.

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

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.

**VILLAGE OF SKANEATELES
46 EAST GENESEE STREET
SKANEATELES, NY 13152**

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