

Annual Drinking Water Quality Report for 2016
Town of Skaneateles
24 Jordan Street, Skaneateles, NY 13152
(Public Water Supply ID#3304347)
Joe Dwyer, Water Department Foreman

INTRODUCTION

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 remain committed to providing you with the safest and most reliable water supply.

If you have any questions about this report or concerning your drinking water, please contact Joe Dwyer at the Town of Skaneateles Water Department office, phone #315-685-0268.

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. Regular Town Board Meetings are held on the first and third Mondays of each month, except July and August when only one meeting is held on the third Monday. The meetings are held at the Town Hall, 24 Jordan Street, Skaneateles, NY and begin at 6 p.m.

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.

TOWN OF SKANEATELES WATER SOURCE

Our community water system receives its water from a surface water source, Skaneateles Lake. It is the fourth largest 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. We are 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 storage tanks 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 the water distribution system.

SWAP SUMMARY FOR SKANEATELES LAKE

The NYS DOH has evaluated the Town 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 Town of Skaneateles. The City of Syracuse provides treatment and regular monitoring to ensure the water delivered to Town 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.

FACTS AND FIGURES

The Town of Skaneateles water system serves a population of approximately 3,500. In 2016 we purchased 116,436,036 gallons of water from the Village of Skaneateles. The amount delivered to customers was 79,910,015 gallons. After 79,910,015 gallons was delivered to customers, there was a loss of 36,526,021 gallons. This water was used to flush hydrants, fight fires, unauthorized use, municipal use and system leakage. These 36+ million gallons account for 31.37% of total gallons purchased. Our billing figures show that 70% of our customers use 6754 gallons of water per month at an average cost of approximately \$180.12 per year.

FILTRATION WAIVER

The Town of Skaneateles along with the City of Syracuse and Village of Skaneateles is currently operating under an open-ended filtration avoidance extension that was granted in June of 2004.

SECURITY

Security measures are continuing and in conjunction with the Village of Skaneateles. New policies have been instituted to further insure the safety of our water distribution system. The new policies put into operation include:

1. All structures are locked and security alarms are armed.
2. Photo I.D.'s are required for all employees.
3. Protocol has been established reporting and responding to threats and other emergencies.
4. 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.
5. Completed update on Emergency Response Plan.
6. 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 Town is required to test for total coliform, chlorine residual, lead and copper, and turbidity. One-hundred and four chlorine residual and turbidity samples were taken by the Town in 2016...

We are also required to take monthly bacteria samples. The Town took forty-eight bacteriological samples in 2016. These samples are taken to the CES lab in Syracuse 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 Town of Skaneateles Water Department Office, phone #315-685-0268.

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 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.

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: Not detected above the regulated detection level.

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: Town of Skaneateles Water Sampling

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity	No	2016 weekly	0.30 (0.11-1.45) (See Note 1)	NTU	N/A	5	High Winds
Lead	No	8/15/14	3.96 (1.0 – 7.99) (See Note 2)	ug/L	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Copper	No	8/15/14	1.2 (0.09 – 1.3) (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	2016 weekly	0.45 (0.09-1.73)	mg/L	(MRDLG) 0	(MRDL) 4	By-product of drinking water chlorination

Notes:

1 – Skaneateles WD Distribution System: 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. Our highest single turbidity measurement for the year (1.45 NTU) occurred on 6/22/16. 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 – The level presented represents the 90th 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 90th percentile is equal to or greater than 90% of the Lead values detected at your water system. In this case, 20 samples were collected at your water system and the 90th percentile value was the second highest value, 3.96 ug/L. The action level for Lead was not exceeded at any of the 20 sites tested.

3 – The level presented represents the 90th percentile of the 20 samples collected. The action level for copper was not exceeded at any of the 20 sites tested.

Table of Detected Contaminants: Skaneateles Lake source water (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
Barium	No	5/10/16	0.025	mg/L	2	2	Erosion of natural deposits
Chloride	No	5/10/16	20	mg/L	n/a	250	Natural deposits; road salts
Chromium 6 (See note 1)	No	1/17/14 & 4/14/14	0.034 (.03-0.38)	ug/L	N/A	N/A	Erosion of natural deposits; Industrial sources.
Fluoride	No	Daily	0.74 (0.27-1.02)	mg/L	n/a	2.2	Natural deposits; Water additive that promotes strong teeth; discharge from fertilizer

Table of Detected Contaminants: Skaneateles Lake source water (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
Nitrate	No	5/10/16	0.55	mg/L	10	10	Runoff from land applied fertilizer and septic tanks; sewage; erosion of natural deposits
Sodium (See note 2)	No	5/10/16	10	mg/L	n/a	n/a*	Natural deposits; road salts; water softeners; animal waste
Sulfate	No	5/10/16	12	mg/L	n/a	250	Naturally occurring
Nickel	No	5/10/16	0.00082	mg/L	n/a	n/a	Erosion on natural deposits

Notes:

1 – Chromium 6: Although it is not regulated the City of Syracuse took a sample for Chromium 6 from its distribution system in September 2014 and had it tested for Chromium 6. This sample was representative of Skaneateles Lake. For more information on Chromium, please see the section title Chromium 6 Health Information.

2 – 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.

Table of Detected Contaminants: Disinfectant & Disinfection By-products (Town of Skaneateles testing)							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Trihalo Methanes **	No	8/9/16	35.5 (25-46)	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	8/9/16	22.5 (19-26)	ug/L	N/A	60	By-Products of drinking water chlorination.

** See 'Definitions' for the listing of Trihalomethanes contaminants

*** See 'Definitions' for the list of Haloacetic acids contaminants

Table of Detected Contaminants: City of Syracuse testing							
Contaminant	Violation Yes/No	Date of Sample	Upper Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity	Yes	2/4/16	11.38	NTU	n/a	5	Soil run off in lake water
	Yes	2/25/16	24.09 (see note 1)				

Notes:

- 1- The City of Syracuse measures the turbidity in its raw water every 4 hours. Turbidity has no health effects. However, Turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, including Giardia Lamblia and Cryptosporidium. Please pay special attention to the additional statement in this document regarding Cryptosporidium...

WHAT DOES THIS INFORMATION MEAN?

The table shows that our system uncovered some problems this year. On February 4 & 25, 2016, the turbidity levels entering the City of Syracuse's intake exceeded the maximum allowable standard of 5 Nephelometric Turbidity Units (NTU) due to high winds. Turbidity levels reached 11.38 NTUs on February 4, 2016. A reading of 24.09 NTU was recorded on February 25, 2016. Notifications of these events were made to the public and to the Onondaga County Health Department.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Please pay special attention to the additional statements in this document regarding Cryptosporidium.

We have learned through our testing that some other 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?

During 2016, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

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.

During 2016, the City of Syracuse Water Dept. took two raw water samples (one from each intake) each month. No Cryptosporidium or Giardia were detected in any of the City of Syracuse's Raw water samples in 2016

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 and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

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

.: CHROMIUM 6 HEALTH INFORMATION

Chromium is a common element in rocks, soil, water, plants, and animals. It gets into surface or groundwater after dissolving from rocks and soil. Chromium is used to manufacture steel, to electroplate metal, and in the textile, tanning, and leather industries. Contamination of drinking water may occur if chromium gets into surface or groundwater after improper waste disposal in landfills or by industrial or manufacturing facilities using chromium.

Chromium is found in the environment in two principal forms: chromium (III) and chromium (VI). Chromium (III) compounds are the most common chromium compounds in the environment. Chromium (VI) compounds are less common in the environment and are typically associated with an industrial source. Depending on the conditions, each form of chromium can be converted into the other form in the environment.

Chromium (VI) is the more toxic form of chromium. There is strong evidence from human studies in many countries that occupational exposures to chromium (VI) in air can cause lung cancer. There is weaker evidence from studies in China that long-term exposure to chromium (VI) in drinking water can cause stomach cancer. Chromium (VI) causes cancer in laboratory animals exposed almost daily to high levels in air (lung cancer) or drinking water (mouth and intestinal cancers) over their lifetimes. Adverse gastrointestinal-tract effects (oral ulcers, stomach or abdominal pain, diarrhea) other than cancer also are associated with long-term human exposures to oral doses of chromium (VI). In laboratory animals, repeated exposures to high oral doses of chromium (VI) has caused blood, liver, and kidney damage in adult animals, and can adversely affect the developing fetus and the male and female reproductive organs. Chemicals that cause cancer or other adverse health effects in people or laboratory animals exposed to high levels also may increase the risk of such effects in people exposed to lower levels over long periods. Prepared by New York State Department of Health – Bureau of Toxic Substance Assessment, March 14, 2011.

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 a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires

that the City of Syracuse monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/L. During 2016 monitoring showed that fluoride levels in your water were within 0.1 mg/L of the target level 87% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/L MCL for fluoride.

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.

ATTENTION:

TOWN OF SKANEATELES WATER CUSTOMERS

The Annual Drinking Water Quality Report for 2016 for the Town of Skaneateles is now available on the Town's website. The entire report is located at:

<http://townofskaneateles.com/pub/docs/AWQR.pdf>

A copy of the report is also available at:

Town Hall

24 Jordan Street

Skaneateles, NY 13152

Or by calling the Town Clerk's Office at 315- 685-3473

Joe Dwyer, Foreman

Town of Skaneateles

Water Department

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