

## INTRODUCTION

To comply with State and Federal regulations, the Village of Sleepy Hollow continues to issue its annual report which describes 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 did not violate a maximum contaminant level or any other water quality standard.

This report provides an overview of the water quality of our water supply for the year 2015. 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 concerns about your drinking water, please call John Arena at the Water Treatment Plant at 914-631-6848. We believe that an informed public is our best ally. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. The meetings are held on the second and fourth Tuesday of the month at 7 PM at the Municipal Building, 28 Beekman Avenue, Sleepy Hollow, NY, 10591. Work sessions are held on the first and third Tuesdays.(meetings are subject to change). This report contains a supplement of analytical testing results for possible contaminants in your drinking water. This document is available for inspection by all interested parties at the Municipal Building located at the aforementioned location.

### 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 also pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water can 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 (Environmental Protection Agency) 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 level of protection for public health.

The Village of Sleepy Hollow has A year round primary source of water. This surface water source comes from the Catskill/Delaware Aqueduct downstream from the Kensico Reservoir in Valhalla, New York. In addition, the municipality has an emergency source of water from the New Croton Aqueduct which originates at the surface water Croton Reservoir in Yorktown, New York. The transmission main from the Catskill Aqueduct to our water treatment plant located on 403 Neperan Road in the Village of Tarrytown has the capability of supplying a maximum capacity of 11.0 million gallons per day (MGD). This transmission main also serves as the primary source of potable water for our neighboring village of Tarrytown and Briarcliff Manor. The Catskill Pumping Station can supply a peak water demand of 4.0 MGD on a normal day. If there is an emergency all pumps running can produce a total of 9.9 MGD. The treatment process at the Pumping Station consists of the application of a blended orthophosphate liquid for corrosion control, followed by gaseous chlorine for disinfection and finally pH adjustment with sodium hydroxide (caustic soda). The water supply from New York City is pre-treated with ultra-violet disinfection, chlorine disinfection and fluoride, prior to our connection into the Catskill Aqueduct. A filtration avoidance provision was granted by the EPA to the City to allow the usage of this source without filtration processes provided that certain conditions exist. New Croton Aqueduct supply is only utilized in the event of an emergency, or an extended shut down on the Catskill Aqueduct and only with prior notification to the Westchester County Department of Health.

The NYS DOH has evaluated the susceptibility of water supplies statewide to potential contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraphs below. 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 this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards. This PWS obtains water from the New York City water supply system. Water either come from the Catskill/Delaware watersheds east of the Hudson River and/or from the Croton watershed in Putnam Westchester counties. The New York City Dept. of Environmental Protection (DEP) implements a series of programs to evaluate and protect source water quality within these watersheds. Their efforts focus on three important program areas: the enforcement of strengthened Watershed Rules and Regulations; the acquisition and protection of watershed lands; and implementation partnership programs that target specific sources of pollution in the watersheds. Due to these intensive efforts, the SWAP methodologies applied to the rest of the state were not applied for this PWS. Additional information on the water quality and protection efforts in these New York City watersheds can be found at DEP’s web site . www.nyc.gov/dep/watershed.

#### SOURCE SPECIFICASSESSMENT:

Specifically, this PWS obtains its water from the Catskill/Delaware watersheds east of the Hudson. The reservoirs in this mountainous rural area are relatively deep with little development along their shorelines. The main water quality concerns associated with land cover agriculture, which can contribute microbial contaminants, pesticides, and algae producing nutrients. These are also some potential contamination concerns associated with residential lands and associated wastewater discharges. However, advanced treatments which reduce contaminants are in place for most of these discharges. There are also a number of other discrete facilities, such as landfills, chemical bulk storages, etc. that have the potential to impact local water quality, but

large significant water quality problems associated with these facilities are unlikely due to the size of the watershed and surveillance and management practiced.

### FACTS AND FIGURES

Our water system serves a total population of 9,870 (2010) census) through 1535 service connections. The total amount of water produced in calendar year 2015 was 457,068,000 gallons. The daily average of water treated and pumped into the distribution system was 1,252,241 gallons per day. Our highest single day was 2,226,000 gallons which occurred on December 10, 2015. The amount of water delivered to customers was 301,061,495 gallons. This leaves an estimated total of 156,006,505 gallons which is based upon the difference between the amount of water pumped and the amount of water billed to the public. This water is un-metered and was utilized for flushing mains and hydrants, fighting fires, faulty meters, non-metered customers and allowable leakage throughout the water distribution system. In 2015, water customers were charged \$ 32.50 per 500 cu ft or 3,750 gallons of water or the annual average water charge per user was \$201.17. The cost of water purchased from the City of New York is \$ 1,728.99 per million (1,000,000) gallons. The Sleepy Hollow Water Department maintains a storage reservoir situated on Rockefeller State Park Preserve property. This reservoir’s capacity is 800,000 gallons with an elevation of 408 feet above sea level. This storage capacity is sufficient for only a small portion of the normal daily potable water needs of the municipality. For this reason, the future expansion of the present storage facility is included in this report under “System Improvements”. The existing reservoir is covered and protected from animal hibernation.

### 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, haloacetic acids, radiological and synthetic organic compounds.

Table 1

The tables presented below depicts which compounds were detected in your drinking water. The state allows us to test for some contaminants less than once a year because the concentrations of these contaminants do not change frequently. As you can see by the table, our system had no violations. We have learned through our testing that some of the contaminants have been detected, however, these contaminants were detected below the level allowed by the State.

### DEFINITIONS

**Action Level** means the concentration of copper or lead that when exceeded triggers actions to be taken by a water system.

Copper action level = 1.300 milligrams per liter [mg/l] or 1300 micrograms per liter (mg/l)
Lead action level = 0.015 mg/l or 15 mg/l

**Contaminant** means any physical, chemical, microbiological, or radiological substance or matter in water.

**Corrosion Inhibitor** means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective coating on the interior surface of these materials.

**Effective corrosion inhibitor residual** means a concentration sufficient to form a protective coating on the interior walls of a pipe particularly household plumbing to reduce the levels of lead and copper in the water supply.

**Emergency source** means a source of water supply which is not the regular source or auxiliary source and which is developed or available during an emergency for temporary use.

**First draw tap sample for lead and copper** means a one liter sample of water collected from a cold water tap after the water has stood motionless in the plumbing system for at least six hours and is collected without flushing the tap.

***Inorganic contaminants***, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Maximum contaminant level (MCL)** means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. For entry point turbidity and inorganic chemicals, the maximum permissible level is measured at the entry point to the distribution system. For organic chemicals the MCL is measured at the individual sources.

**Maximum contaminant level goal (MCLG)** is defined as the level of a contaminant in water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

***Microbial contaminants***, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Maximum Residual Disinfectant Level (MRDL)** is 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)** is 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).

***Millirems per year (mrem/yr):*** A measure of radiation absorbed by the body.

***Million Fibers per Liter (MFL):*** A measure of the presence of asbestos fibers that are longer than 10 micrometers.

***Non-Detects (ND):*** Laboratory analysis indicates that the constituent is not present.

***Nanograms per liter (ng/l):*** Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

### Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected Max/Average (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contaminant
<b>Radioactive Contaminants</b>							
Beta particle and photon activity from manmade radionuclides	No	2013	0.34	pCi/l	0	50 <sup>(1)</sup>	Decay of natural deposits and manmade emissions
Gross alpha activity (including radium-226 but excluding radon and uranium)	No	2013	.063	pCi/l	0	15	Erosion of natural deposits
Combined Radium -226 and 228	No	2013	0.61	pCi/l	0	5	Erosion of natural deposits
<b>Inorganics</b>							
Lead	No	2015	1.10 <sup>(2)</sup>	ug/l	0	15	Corrosion of household plumbing system; Erosion of natural deposits
Copper	No	2015	0.116 <sup>(2)</sup>	mg/l	0	1.3	Corrosion of household plumbing system; Erosion of natural deposits; leaching from wood preservatives
Barium	No	2015	15.4	ug/L	2000	2000	Erosion of natural deposits
Chloride	No	2015	11.0	mg/L	N/A	250.0	Naturally occurring or indicative of road salt contamination
Iron	No	2015	70.6	ug/L	N/A	300	Naturally occurring
Fluoride (added by NYCDEP at Catskill Aqueduct)	No	2015	0.78	mg/L	N/A	2.2	Erosion of natural deposits; Water additive that promotes strong teeth;
Nitrate	No	2015	0.208	mg/L	10.0	10.5	Runoff from fertilizer use; leaching from septic tanks; sewage; Erosion of natural deposits
Manganese	No	2015	46.2	ug/L	N/A	300	Naturally occurring
Phosphorous Ortho	No	2015	.569	mg/L	N/A	N/A	Added for corrosion control
Sodium <sup>(3)</sup>	No	2015	8.660	mg/L	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste
Sulfate, potable	No	2015	4.15	mg/L	N/A	250	Naturally occurring
Zinc	No	2015	3.7	ug/L	N/A	5000	Naturally occurring
PH	No	2015	7.10	units	N/A	N/A	A process
Turbidity	No	2015	1.18 <sup>(4)</sup> (4.9-4.27) <sup>(5)</sup>	NTU	N/A	5.00	Soil Runoff
<b>Disinfection Byproducts</b>							
Total Trihalomethanes (TTHMS)	No	2015 all 4 quarters	25.01 <sup>(6)</sup> (15.03-35.33) <sup>(7)</sup>	ug/L	N/A	80.0	By-product of drinking water chlorination needed to kill harmful organisms. They are formed when source water contains large amounts of organic matter
Total Haloecetic Acids (HAA5)	No	2015 all 4 quarters	27.9 <sup>(6)</sup> (21.1-35.5) <sup>(7)</sup>	ug/L	N/A	60.0	By-product of drinking water chlorination needed to kill harmful organisms.

Table 2

1. The State considers 50 pCi/l to be the level of concern for Beta particles.

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 or copper value detected at your water system In this case, twenty samples were collected at your water system and the 90th percentile value was the 18th highest value. The action level of copper was not exceeded at any of the sites tested. The action level for copper is 1.3 mg/l (1300 ug/l). The action level for lead was not exceeded at any of the sites tested. The action level for lead is 15 ug/l.

3. 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.

4. The level represents the annual turbidity average.

5. The range represents the minimum and maximum value of all turbidity readings collected throughout the year.

6. The level represents the highest value of Locational Running Annual Average calculated from the data collected.

7. The range represents the minimum & maximum values out of all the THHMS & HAA5 collected throughout the year.

### Some of our data of the representative tables are more than one year old.

# Village of Sleepy Hollow



ECRWSS  
 POSTAL PATRON  
 SLEEPY HOLLOW, NY 10591

## ANNUAL DRINKING WATER QUALITY REPORT FOR 2015

VILLAGE OF SLEEPY HOLLOW  
 DEPARTMENT OF PUBLIC WORKS  
 WATER & SEWER DEPARTMENT

28 BEEKMAN AVENUE  
 SLEEPY HOLLOW, NY 10591

PUBLIC WATER SYSTEM  
 ID# 05903450

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Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risk of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand washing practices are poor.

**CRYPTOSPORIDIUM** is a microbial pathogen found in surface water and ground water under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. The above table represents our 2015 Cryptosporidium routine sampling plan. Ingestion of Cryptosporidium may cause Cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immune-compromised people are at greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

### 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 about their drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of Cryptosporidium, Giardia, and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).*

### INFORMATION FOR NON ENGLISH SPEAKING RESIDENCE

This report contains very important information about your drinking water. Translate it, or speak to someone who understands it. Este informe contiene informacion muy importante sobre su agua beber. Traduzalo o hable con alguien que lo entienda bien.

### 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.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, and then check the meter after 15 minutes. If it moved, you have a leak.

### SYSTEM IMPROVEMENTS

Even though the Village is reduced from sampling the lead and copper for 3 years we are always making improvements of our system. These improvements consist of a corrosion control program. This program consists of the application of caustic soda for pH adjustment and the addition of a blended orthophosphate solution for corrosion protection. The orthophosphate solution is a finely blended product that is added to the water in an effort to lower lead and copper levels at the consumers' taps and enhance water quality. This food grade substance is used in a variety of foods including baked goods, meat and poultry, seafood, dairy products, vegetables, etc., at much higher concentration levels than could ever be ingested from treated water. Through the cooperation of residents, follow up sampling is ongoing to determine the continued effectiveness of this treatment method and to monitor and insure the continued compliance with the Rule. Another major improvement will be the building of a 1.6 million gallon reservoir which will be an addition to the 800,000 gallon reservoir we already have.

### CONCLUSION

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all of our customers help us protect our water sources, which are the heart of our community and our way of life. For further information, you may call the office of the Sleepy Hollow Water Department between the hours of 8:30 AM and 4:30 PM at 366-5103 or 366-5100.

**Nephelometric Turbidity Unit (NTU)** is a measure of the clarity of the water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Optimal corrosion control treatment** means the corrosion control treatment that reduces the lead and copper concentrations at the users' taps to the lowest reasonably achievable level while insuring that the treatment does not cause the water system to violate Part 5 of the State Sanitary Code or cause adverse health or operational effects.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

**Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

**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.

**Principal organic contaminant (POC)** means any organic chemical compound belonging to the following classes:

- (1) Halogenated alkane
- (2) Halogenated ether
- (3) Halobenzenes and substituted halobenzenes
- (4) Benzene and alkyl- or nitrogen-substituted benzenes
- (5) Substituted, unsaturated hydrocarbons
- (6) Halogenated non-aromatic cyclic hydrocarbons

**Radioactive contaminants**, which can be naturally-occurring or be the result of oil and gas production and mining activities.

**Regular source** means a source of water supply which is normally used and is approved by the Local Health Department Entity and other State agencies having jurisdiction.

**Source of water supply** means any ground water aquifer, surface water body, or water course from which water is taken either periodically or continuously for drinking, culinary, or food processing purposes, or which has been designated for present or future use as a source of water supply for domestic or municipal purposes.

**Surface water** means all water open to the atmosphere and subject to surface runoff.

**Treatment technique** refers to a required process intended to reduce the level of a contaminant in drinking water.

**Turbidity** is a measure of the cloudiness of the water. It is monitored because it is an indicator of water quality and the effectiveness of disinfection.

**Unspecified organic contaminant (UOC)** means any organic chemical compound not otherwise specified.

### WHAT DOES INFORMATION MEAN?

As you can see by the table the system had no violations. We have learned through our testing that some contaminates have been detected, however the contaminates have been detected below New York State requirements.

### ABOUT LEAD IN DRINKING WATER

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Sleepy Hollow is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

*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 the 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 at (1-800-426-4791), or by visiting the website at: WWW.EPA/GOV/SAFEWATER/LEAD.COM. Or you can call the Westchester County Health Department at (914) 813-5000.*

### WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS

During 2015 our system was in compliance with applicable state drinking water operation monitoring and reporting requirements.

The New York City Department of Environmental Protection conducted a test protocol to determine the concentration of cryptosporidium and giardia in their source water. The results are as follows:

Organism	Total # of Samples	Total # of Organisms in all samples	Average Number of Organisms in each sample
Giardia	52	44	0.846
Cryptosporidium	52	9	0.173

**GIARDIA** is a microbial pathogen presents in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. The above table represents our 2015 Giardia routine sampling plan. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present.