Annual

Drinking Water Quality Report
2015
Hillcrest Water
58 Hillcrest Avenue

(Public Water Supply ID # 3905681)

Town of Southeast, New York

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Brewster, NY 10509

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Town of Southeast, New York
(Public Water Supply ID # 3921722)

INTRODUCTION

To comply with State and Federal regulations, the Hillcrest Water District will be annually issuing a report describing the quality of your drinking water. The current report covers the period of 1/1/2015 through 12/31/2015. 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 standards. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. If you have any questions about this report or concerning your drinking water, please contact the Special Districts Administrator for the Town of Southeast at 845-279-8206.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that your tap water is safe to drink, the State and the Environmental Protection Agency (EPA) prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves approximately 351 people through 130 service connections. The water system consists of three wells located off Hillcrest Ave. Well #1 produces 40 gallons per minute, Well #2 produces 30 gallons per minute, and Well #3 produces 20 gallons per minute. The flow from the three wells are pumped through a packed tower and the water then enters the pump house and is disinfected with chlorine. The water subsequently goes into a 20,000-gallon storage tank. The water is taken from the storage tank by three booster pumps and pumped into a hydro-pneumatic tank. The water is then discharged into the distribution system as the demand dictates.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, the water system operators routinely test your drinking water for numerous contaminants. These contaminants include; total coliform, inorganic compounds, nitrates, nitrites, lead and copper, volatile organic compounds, total trihalomethanes, synthetic organic compounds, and radiological contaminants. The table presented below depicts which compounds were detected in your drinking water. The State allows the water system operators 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.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-462-4791) or the Putnam County Health Department at (845) 278-6130.

Water Quality Data Table for Hillcrest

Contaminant	Violation Yes/No	Date Of Sample	Level Detected	Unit of Measurement	MCLG	MCL	Sources in Drinking Water
Inorganic Contaminants							
Copper	No	7/18/15	0.070 Range 0.039-0.070	mg/l	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	No	7/18/15	6	ug/l	15	15	Corrosion of household plumbing systems, erosions of natural deposits
Nitrate	No	8/26/15	0.42	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium	No	11/4/15	39.3	mg/l	NA	See Health Effects	Naturally occurring: Road salt: Water softeners: Animal waste
Barium	No	8/21/13	0.044	mg/l	2	2	Discharge from drilling wastes and metal refineries. Erosion of natural deposits
Chloride	No	8/4/10	140	mg/l	NA	250	Naturally occurring or indicative of road salt contamination
Iron	No	8/4/10	0.002	ug/l	NA	300	Naturally occurring.
Manganese	No	8/4/10	0.014	ug/l	NA	300 A	Naturally occurring; Indicative of landfill contamination
Sulfate	No	8/4/10	25	mg/l	NA	250	Naturally occurring.
Zinc	No	8/4/10	0.028	Mg/l	NA	15	Naturally occurring. Mining waste.

Contaminant	Violation Yes/No	Date Of Sample	Level Detected	Unit of Measurement	MCLG	MCL	Sources in Drinking Water
Volatile Organic Contaminants - Sample Results From Wells #1, #2 & #3							
Methyl Tertiary Butyl ether (MTBE)	No	Well #1 11/13/15 Well #2 11/4/15 Well #3 11/4/15	ND 0.70 ND	ug/l	NA	50	Releases from gasoline storage tanks. MTBE is an octane enhancer in unleaded gasoline. Atmospheric deposition.

Contaminant	Violation Yes/No	Date Of Sample	Level Detected	Unit of Measurement	MCLG	MCL	Sources in Drinking Water
Disinfection Byproducts - Sample Results From Distribution							
Total Trihalo-methanes (TTHMs - chloroform, bromodichlor-omethane, di-bromochloromethane, bromoform	No	Sampled Annually 8/26/15	22.7	ug/l	NA	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are found when source water contains large amounts of organic matter.
Haloacetic Acids (mono-, di-, and tricloroacetic acid, mono- and di-bromoacetic acid	No	Sampled Annually 8/26/15	5.2	ug/l	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms.

- Five lead and copper samples were taken on 7/18/15 and all five were below the action level.

1. The level presented represents the 90th percentile of the total number of samples taken. 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/Copper values detected at your water system.

Health Effects:
Sodium: 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.

Additional Test Result Information: 2015 (Results are in ug/l units).

Well # 1 (Raw Water)

Contaminant	2/12/15	5/13/15	8/12/15	11/13/15
Cis-1-2-Dichloroethene,ug/l	15	16	13	ND
Trichloroethene, ug/l	12	13	9.7	ND
Tetrachloroethene, ug/l	20	19	16	ND
MTBE, ug/l	0.50	ND	ND	ND

Well # 2 (Raw Water)

Contaminant	2/12/15	5/13/15	8/12/15	11/4/15
Cis-1-2-Dichloroethene,ug/l	26	27	21	28
Trichloroethene, ug/l	19	21	16	21
Tetrachloroethene, ug/l	28	27	27	28
MTBE, ug/l	0.68	0.71	0.55	0.70

Well # 3 (Raw Water)

Contaminant	2/12/15	5/13/15	8/12/15	11/4/15
Cis-1-2-Dichloroethene,ug/l	ND	20	ND	ND
Trichloroethene, ug/l	ND	16	ND	ND
Tetrachloroethene, ug/l	ND	24	ND	ND
MTBE, ug/l	ND	0.54	ND	ND

Distribution

Contaminant	2/12/15		8/12/15	11/4/15
Cis-1-2-Dichloroethene,ug/l	0.82		0.55	ND
Trichloroethene, ug/l	0.50		0.50	ND
Tetrachloroethene, ug/l	0.50		0.50	ND
MTBE, ug/l	0.50		0.50	ND

The Health Department requires that this system sample each quarter for Principal Organic Contaminants (POC) due to detects of certain POC's in the system. The State may decrease the quarterly monitoring requirement to annually, provided that the system is reliably and consistently below the MCL based on a minimum of two quarterly samples from a groundwater source. Systems, which monitor annually, must monitor during the quarter, which previously yielded the highest analytical results.

The best recommended available technology for these types of contaminants is a Packed Tower Aeration system (PTA). A PTA is installed and utilized in this system. The chart, which includes the distribution results, show that the PAT reduced the levels in all samples collected. The State MCL for MTBE is 50ppb (ug/l). The highest level detected in the distribution system was 0.60 ppb (ug/l).

Definitions:

Variance & Exemption (V&E) – state or EPA permission not to meet an MCL or treatment technique under certain conditions.

Action Level (AL) – The concentrations of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.

Maximum Contaminant Level (MCL) – The "Maximum Allowed" (MCL) is 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 "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Non – Detects (ND) – Laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or milligrams per liter (mg/l) – One part per million corresponds to one minute in two years or a single penny in $10,000.

Parts per billion (ppb) or micrograms per liter (ug/l) – One part per billion corresponds to one minute in 2,000 years or a single penny in $10,000,000.

Parts per trillion (ppt) or nanograms per liter (nanograms/l) – One part per trillion corresponds to one minute in 2,000,000 years or a single penny in $10,000,000,000.

Picocuries per liter (pCi/L) – picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) – measures of radiation absorbed by the body.

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

Mathematical Conversions

1 mg/l = 1 ppm
1 ug/l = 1 ppb
1 ppm x 1000 = 1ppb
1ppb / 1000 = 1 ppm

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. It should be noted that one lead sample result was above the limit. Based on this we are providing the following information:

Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (**1-800-426-4791**).

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATION?
During 2014, our system was in compliance with applicable State drinking water operating, monitoring, and reporting requirements.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?
Our drinking water meets and exceeded state and federal regulations. Some people (Immune-compromised persons such as those with cancer under-going chemotherapy, persons who have undergone organ transplants, and people with HIV/AIDS or other immune system disorders) may be more vulnerable to contaminants in drinking water then the general population. The elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care provider. Environmental Protection Agency and Center of Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbiological contaminants are available from the
Safe Drinking Water Hot Line (1-800-426-4791).

WHY SAVE WATER AND HOW TO AVOID WASTING IT?
Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it 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.

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

BACKFLOW PREVENTION

What is "Backflow"?

Backflow occurs when water is pushed (called backpressure) or pulled (called back siphon). Backpressure is caused when the force of water at a property overcomes city water pressure. Generally backpressure is attributed to pumps, but can also be caused by tall buildings (due to the height and weight of the given column of water). Back siphon occurs when a "reverse siphon" is caused due to pressure loss or fluctuation. Generally water main breaks or large water uses like operating fire hydrants during a fire can cause back siphon to occur. The use of backflow prevention assemblies can help prevent backpressure and/or back siphon.

Backflow Prevention

- Each water spigot (hose bib) should have a hose bib vacuum breaker installed.
- Never submerge the hose end in any liquid.
- If using a spray nozzle, Release the pressure in the hose AFTER the hose bib is shut, Sun or heat can cause the hose pressure to become greater than the drinking water system pressure.
- Disconnect hoses from faucets or bibs after use.
- Store the hose in a manner that would prevent the end from dropping into a liquid or on the ground.
- Never attach hoses or other devices to tub or sink faucets that could be submerged in a liquid.

Please contact your water supplier if you have any questions about backflow prevention

Reference: http://www.epa.gov/safewater/crossconnection.html
http://www.usc.edu/dept/fccchr/
http://www.health.state.ny.us/environmental/water/drinking/cross/cross.htm

WATER HARDNESS

Your water has a hardness of 200 ppm.

The most common water problem is hardness, which is caused by calcium. No natural water supply is free of hardness. Many industrial and domestic water users are concerned about the hardness of their water. Hard water requires more soap and synthetic detergents for home laundry and washing, and contributes to scaling in boilers and industrial equipment. Hardness is caused by compounds of calcium and magnesium, and by a variety of other metals. Water is an excellent solvent and readily dissolves minerals it comes in contact with. As water moves through soil and rock, it dissolves very small amounts of minerals and holds them in solution. Calcium and magnesium dissolved in water are the two most common minerals that make water "hard."

The hardness of water is referred to by three types of measurements: grains per gallon, milligrams per liter (mg/L), or parts per million (ppm). Typically, the water produced by Fairfax Water is considered "moderately hard" to "hard." The table below is provided as a reference.

Water Hardness Scale		
Grains Per Gallon	Milligrams Per Liter (mg/L)or Parts Per Million (ppm)	Classification
less than 1.0	less than 17.1	Soft
1.0 - 3.5	17.1 - 60	Slightly Hard
3.5 - 7.0	60 - 120	Moderately Hard
7.0 - 10.5	120 - 180	Hard
over 10.5	over 180	Very Hard

You can test your water for hardness at your home or in your pool using a water hardness test kit available from most "do it yourself" home centers or pool supply stores.

SHUTTING YOUR WATER OFF IN AN EMERGENCY

Your home should have a “master shutoff valve” inside and a curb valve outside. In case of emergency do you know where your valves are and how to shut your water off? You may contact the Town if you would like to schedule an appointment for assistance in locating your outside shutoff.

CLOSING

We ask that all our customers help us protect our water sources. If you have any comments or questions regarding the information presented in this report, please do not hesitate to contact the Special District Office by either e-mailing specialdistricts@southeast-ny.gov or calling 845-279-8206. We will do our best to provide you an answer or direct you to the operators of your water system who are here to answer any of your questions.

Town of Southeast
Special District Office
One Main Street
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