Annual

Drinking Water Quality Report
2012
Springhouse Estates Water
(Public Water Supply ID # 3920003)

Town of Southeast, New York
1360 Route 22
Brewster, NY 10509

Town Supervisor
Tony Hay

Town Board
Elizabeth Hudak
Robert Cullen
Lynne Eckardt
Edwin Alvarez

Special District Administrator
Levon Bedrosian

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INTRODUCTION

To comply with State and Federal regulations, the Spring House water system will be annually issuing a report describing the quality of your drinking water. The current report covers the period of 1/1/2012 through 12/31/2012. 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, we conducted tests for over 80 contaminants. We detected 5 of those contaminants. 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 126 people through 54 service_connections. This water system is located off Drovers Lane in the Town of Southeast. The system consists of three wells. Well #1 produces about 5 gallons per minute and Well #2 produces about 16 gallons per minute. Well #3 is only used in an emergency due to very high iron and manganese. The water is disinfected with chlorine. Well one and two is pumped through a green sand filter system then to the storage tank. The green sand filter removes the high iron and manganese that is present in this wells raw water. The water is then pumped from the storage tank to a pneumatic pressure tank. The water is then treated with a corrosion control chemical prior to going into the distribution system. The pneumatic pressure tank maintains the system pressure.

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, inorganic compounds, nitrates, nitrites, lead and copper, volatile organic compounds, total trihalomethanes, synthetic organic compounds, and radiological. The table presented below depicts 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.

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 Springhouse

Contaminant	Violation Yes/No	Date Of Sample	Level Detected	Unit of Measure ment	MCLG	MCL	Sources in Drinking Water
Inorganic Contaminants							
Nitrate	No	4/12/12	0.29	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Copper	No	9/24/08	2.33 [1] Range 0.246 – 2.75	mg/l	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	No	9/24/08	4 [1] Range 1 - 7	ug/l	15	15	Corrosion of household plumbing systems, erosion of natural deposits
Iron	No	2/9/12	.018	mg/l	NA	.300[A]	Naturally occurring.
Manganese	No	5/9/12	.019	mg/l	NA	.300 [A]	Naturally occurring; Indicative of landfill contamination
Barium	No	9/8/10	0.186	mg/l	2	2	Discharge from drilling wastes and metal refineries. Erosion of natural deposits
Sodium	No	2/9/12	76.8	mg/l	NA	See Health Effects	Naturally occurring; Road salt; Water softeners; Animal waste.

Contaminant	Violation Yes/No	Date Of Sample	Level Detected	Unit of Measure ment	MCLG	MCL	Sources in Drinking Water
Disinfection Byproducts							
Total Trihalo-methanes (TTHMs - chloroform, bromodichlor-omethane,di-bromochloromethane, bromoform	Yes	7/12/12	267 (190)	ug/l	NA	80 See Health Effects	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	Yes	7/12/12	205 (137.7)	ug/l	N/A	60 See Health Effects	By-product of drinking water chlorination needed to kill harmful organisms.

Contaminant	Violation Yes/No	Date Of Sample	Level Detected	Unit of Measure ment	MCLG	MCL	Sources in Drinking Water
Radiological Contaminants							
Gross Alpha	No	11/22/2011	ND	pCi/L		15	Erosion of natural deposits
Gross Beta	No	11/22/2011	0.97 ± 0.91	pCi/L	0	50*	Erosion of natural deposits and man-made emissions
Combined Radium 226 and 228	No	11/22/2011	0.97 ± 0.91	pCi/L	0	5	Erosion of natural deposits

A. If iron and manganese are present, the total concentration of both should not exceed .500 mg/l.

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.

   - Five lead and copper samples were taken on 9/29/2008 and there were two (2) samples above the Copper Action Level (AL). (See Health Effects and "What Does This Information Mean" below)

Health Effects:

- **Trihalomethanes** - Some people who drink water containing Trihalomethanes excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems and may have an increased risk of getting cancer.
- **Haloacetic Acids** – Some people who drink water containing Haloacetic Acids in excess of the MCL over many years may have an increased risk of getting cancer.
- **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.
- **Copper –** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level may, with short term exposure, experience gastrointestinal distress, and with long-term exposure may experience liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level.

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.

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 exceeded the MCL for TTHM and HAA5 as well as the MCL for Copper. 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 OPERATION?

During 2012, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements with two (2) exceptions:

1) Total Trihalomethanes (TTHMs), all four (4) sampling quarters and Haloacetic Acids (HAA5), First and fourth quarter both of which are disinfection by-products (DBP's). DBP's are formed when naturally occurring organics interact with chlorine used to disinfect the water.

A program using Granulated Activated Carbon (GAC) for removal of the organics and reduction of DBP's was initiated in 2007. Sampling results taken since this period indicate that the GAC system has reduced the level of organics/DBP however the levels of TTHM and HAA5 continues to exceed the state limit.

As you should be aware, The Town has drilled and tested an alternative well field water source. The Town has requested bids for the construction of a new pump house and work is expected to be completed by the end of 2013. We anticipate the new water source to have quality water that needs minimal processing before being distributed.

2) The table shows that our system uncovered some problems this year with 90th Percentile copper results being above the Action Level. See Copper in Health Effects section above. Corrosion control measures are in place to minimize risk of excessive

copper in the drinking water and lab results indicate that those measures are at an effective level. We investigating this issue by trying to determine if there were plumbing renovations conducted in any of the homes that serve as sample sites.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

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

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
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Brewster, NY 10509