



2014 Water Quality Report

Caring For Our Environment. Committed To Our Communities.



A Message from the President and CEO



Charles V. Firlotte
President and CEO

Dear Customer:

Safe, high-quality water is essential to many things – our individual health and well-being, community property values, a strong economic base for our entire area, and the integrity of our environment. Accordingly, in 2014 we conducted more than 155,000 tests on the water we supply. And we're proud to report that the water we supplied to you again met or surpassed each of the quality standards established by state and federal agencies.

With Aquarion, quality water also means quality service. In 2014, we continued investing to upgrade water lines, treatment plants and other supply infrastructure across the state to help ensure a constant supply.

These efforts paid off as well. In the past year, only five complaints about our service were registered with the state's Public Utilities Regulatory Authority. That's the lowest complaint rate among utilities of any type in Connecticut. Considering that people turn a faucet or otherwise use our product more than six million times per day, we were especially proud to continue our record for reliable service.

There's even better news for 2015 – your water bill will be decreasing. Due to a tax refund we received and will share with all of our customers, your water bill is being reduced by 5.6 percent for three years. This reduction began this past January and will continue until the end of 2017.

Of course, as welcome as the rate reduction is, it doesn't mean that any of us should ease up on trying to conserve water in every way possible. Simple measures such as fixing leaky faucets, watering plants from a rain barrel, keeping a pitcher of drinking water in the fridge and many other conservation initiatives can help you keep costs down even more while helping ensure long-term supply of this precious substance. You'll find a number of other practical, money-saving tips at our website, aquarionwater.com.

Voluntary water conservation programs are just one of the ways that individuals, companies and non-profits can earn the annual Aquarion Environmental Champion Award. This year marks the fifth anniversary of the competition, in which we honor volunteer efforts across the state for their contributions to protect and improve Connecticut's environment. Competition for the 2015 awards has come to a close, but you can read about our winners and their inspiring stories at our website, aquarionwater.com.

In closing, I must thank all our employees for their hard work in delivering to you the value you've come to count on from Aquarion. And I thank you and all our customers across the state for helping to protect our water resources and making the most of every drop you use.

Sincerely,

Charles V. Firlotte
President and CEO



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Clean, safe water is just the start!

Free admission tickets!

Be sure to take advantage of the special 2-for-1 ticket deals and other offers that Aquarion has arranged for its customers at great Connecticut attractions like the Stamford Museum and Nature Center, Connecticut's Beardsley Zoo, the Mystic Aquarium, the Westport Country Playhouse, the Bridgeport Bluefish baseball team, the Sound Tigers hockey team, the Trumbull Marriott and, new for this year, the Bridgeport & Port Jefferson Ferry. You'll find full details at aquarionwater.com.



The Bridgeport & Port Jefferson Ferry

We've got whales!

Watch Mystic Aquarium's fascinating collection of beluga whales live on the webcams Aquarion sponsors. Find the fun at aquarionwater.com.



Find us on Facebook
facebook.com/aquarionwater



Water Quality Table for Customers in the Sandy Hook and Chestnut Tree Hill Systems, Newtown

Your water has been tested for more than 100 compounds that are important to public health. In these two systems, the maximum number of compounds detected was 16, all of which were below the amounts allowed by state and federal

law. Most of these compounds are either naturally occurring or introduced as treatment to improve water quality. Monitoring frequency varies from daily to once every nine years per EPA regulation, depending on the

parameter. Our testing encompasses the full range of regulated inorganic, organic and radiological compounds and microbiological and physical parameters. Results shown below are for detected compounds only.

Substance (Units of Measure)	Highest Allowed by Law			Sandy Hook System Detected Level		
	MCLG	MCL	Compliance	Test Date	Average	Range
Inorganic Compounds						
Arsenic (ppb)	0	10	YES	2013	9	8 – 9
Barium (ppm)	2	2	YES	2013	0.004	0.002 – 0.006
Cadmium (ppb)	5	5	YES	2013	ND < 1	ND < 1
Copper (ppm)	1.3	AL = 1.3	YES	2014	0.46*	
Fluoride (ppm)	4.0	4.0	YES	2013	0.09	0.05 – 0.13
Lead (ppb)	0	AL = 15	YES	2014	6**	
Nitrate (ppm)	10	10	YES	2014	1.82	0.98 – 2.66
Radiologicals						
Alpha Emitters (pCi/L)	0	15	YES	2013	ND < 3.0	ND < 3.0
Uranium (ppb)	0	30	YES	2013	4.8	4.6 – 5.0
State-Required Testing						
Physical Characteristics[^]						
Color (CU)	NA	15	YES	2014	2	0 – 10
pH	NA	6.4 – 10.0	YES	2014	7.1	6.8 – 7.6
Turbidity (NTU)	NA	5	YES	2014	0.97	0.05 – 18.0
Inorganic Compounds						
Chloride (ppm)	NA	250	YES	2013	28.9	26.9 – 30.8
Sodium (ppm)	NA	NL = 28	NA	2013	14.5	10.0 – 18.9
Sulfate (ppm)	NA	SMCL = 250	NA	2013	12.5	9.3 – 15.6

Compliance	Test Date	Chestnut Tree Hill System Detected Level	
		Average	Range
YES	2013	ND < 1	ND < 1
YES	2013	0.028	0.011 – 0.045
YES	2013	ND < 1	ND < 1 – 1
YES	2014	1.3*	
YES	2013	0.04	0.03 – 0.04
YES	2014	6**	
YES	2014	5.36	4.09 – 7.55
YES	2013	ND < 3.0	ND < 3.0 – 3.2
YES	2013	5.3	4.6 – 5.9
YES	2014	1	0 – 2
YES	2014	6.8	6.6 – 7.0
YES	2014	0.12	0.05 – 0.25
YES	2013	42.3	15.9 – 68.7
NA	2013	21.9	12.5 – 31.2
NA	2013	12.7	11.8 – 13.6

Footnotes and Definitions for table on left

- < Less than
- AL Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- CU Color Units
- MCL Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- MCLG Maximum Contaminant Level Goal: 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.
- NA Not Applicable
- ND Not Detected
- NL State of Connecticut customer notification level.
- NTU Nephelometric Turbidity Units, a measure of the presence of particles. Low turbidity is an indicator of high-quality water.
- pCi/L Picocuries per liter
- ppb parts per billion, or micrograms per liter (ug/L)
- ppm parts per million, or milligrams per liter (mg/L)
- SMCL Secondary Maximum Contaminant Level
- * 90th percentile value in copper monitoring. Result is representative of customer sampling stagnant water. No locations exceeded the action level for copper.
- ** 90th percentile value in lead monitoring. Result is representative of customer sampling stagnant water. No locations exceeded the action level for lead.
- [^] Measured at representative locations within the distribution system.

HEALTH EFFECTS

For customers in the Sandy Hook System

Arsenic: While your drinking water meets the EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

For customers in the Chestnut Tree Hill System

NITRATE: Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than 6 months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

SODIUM: If you have been placed on a sodium-restricted diet, please inform your physician that our water may contain as much as 31.2 ppm of sodium.

Your Health Is Our Priority

Sandy Hook PWS ID#: CT0970041
Chestnut Tree Hill PWS ID#: CT0970051

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 EPA's Safe

Drinking Water Hotline **(800-426-4791)**.

Here is some additional information of interest about Aquarion's drinking water.

Where does your water come from?

Your water is collected in wells and delivered to you through an underground piping system. The Sandy Hook System supply is drawn from eight wells. It serves about 300 people and has an average customer demand of 19,400 gallons of water per day (GPD). The Chestnut Tree Hill System supply is ground water drawn from four wells. It serves about 200 people and has an average customer demand of 7,900 GPD. Company-wide, an average of 15.2% of the demand is water drawn for firefighting, water main cleaning, water main breaks and leaks, and unauthorized use.

How is your water treated?

Water from the wells is filtered naturally underground. In 2014, treatment was added to the Sandy Hook wells to remove arsenic and further treated to protect the distribution system.

Cryptosporidium

The EPA requires public water systems that use surface water sources to monitor for Cryptosporidium. This is a microbial pathogen found in lakes and rivers throughout the U.S. that can cause gastrointestinal illness if consumed. Aquarion continues to monitor its surface water sources and has not detected Cryptosporidium.

Disinfection By-Products

Disinfection by-products (DBPs) are chemicals formed during the disinfection process, when naturally occurring organic matter reacts with chlorine, which is added to water to eliminate bacteria and other microorganisms. Currently there are limits on two types of DBPs known as Total Trihalomethanes (TTHM) and Total Haloacetic Acids (THAA). Some people who drink water containing DBPs that exceed these limits over many years may experience problems with their livers, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

The state has implemented new DBP regulations that change how compliance with the standards is determined. The intent is to increase protection against the potential health risks associated with DBPs. Aquarion Water Company continues to evaluate its systems to ensure compliance with DBP regulations.

Source Water Assessment Report

Connecticut's Department of Public Health (DPH) states in its Source Water Assessment Report that the public drinking water sources in the Sandy Hook and Chestnut Tree Hill systems have a low susceptibility to potential contamination. To read the DPH reports, visit ct.gov/dph.

Understanding Your Water Quality Table

Arsenic:	Erosion of natural deposits.
Barium:	Erosion of natural deposits.
Cadmium:	Erosion of natural deposits.
Copper:	Corrosion of household plumbing systems.
Fluoride:	Erosion of natural deposits.
Lead:	Corrosion of household plumbing systems.
Nitrate:	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits..
Alpha Emitters:	Erosion of natural deposits.
Uranium:	Erosion of natural deposits.
Color:	Natural organic matter such as decaying leaves; naturally occurring iron and manganese.
pH:	Naturally occurring.
Turbidity:	Sediment particles; naturally occurring iron and manganese; soil runoff.
Chloride:	Naturally present in the environment.
Sodium:	Use of road salt; naturally present in the environment.
Sulfate:	Naturally present in the environment.



Your Health Is Our Priority

Copper and Lead

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level* over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. Major sources of copper in drinking water include corrosion of household plumbing systems and erosion of natural deposits.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water comes primarily from materials and components associated with service lines and home plumbing. Aquarion Water Company is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. Fortunately, the Lead in Drinking Water Act, which took effect in January 2014, requires a significant reduction of the lead content in new plumbing components that contact drinking water. As a result, the lead content in new pipes, fittings, fixtures and solder must be reduced from 8% to 0.25%.

Customers can minimize the potential for lead exposure when water has been sitting for several hours by running the 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 or at epa.gov/safewater/lead.

*The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Immuno-compromised persons

Some people may be more vulnerable to contaminants 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 drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

More Information You Should Know

Protecting water at the source

Even small quantities of pollutants may be enough to contaminate a drinking water supply. Examples of pollutants that may wash into surface water or seep into ground water include:

- ◆ Microbial contaminants from septic systems, agriculture and livestock operations, and wildlife;
- ◆ Inorganic contaminants such as salts and metals that can be naturally occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, or farming;
- ◆ Pesticides and herbicides from sources such as agriculture, urban storm water runoff, and residential uses;
- ◆ Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes; and
- ◆ Radioactive contaminants that can be naturally occurring.

How does Aquarion protect your drinking water?

Aquarion Water Company's commitment to providing the highest quality water is evidenced by our regular inspection of homes, businesses, farms and other sites that could pollute water supplies. We also review new land development projects for impact on water quality. In total, we conduct more than 155,000 water quality tests annually. We use the best water treatment and filtration technology and continue to invest in our water systems' infrastructure to improve the security and quality of your water.



You can help prevent water contamination

- ◆ Ensure that your septic system is working correctly.
- ◆ Use chemicals and pesticides wisely.
- ◆ Dispose of waste chemicals and used motor oil properly.

- ◆ Report illegal dumping, chemical spills, or other polluting activities to the CT DEEP (Department of Energy and Environmental Protection) 24-hour hotline (860-424-3338), Aquarion Water (800-732-9678), or your local police.

Protecting your water at home:

Lawn irrigation systems

Your irrigation system helps keep the lawn healthy and beautiful, but did you know it can also contaminate your family's drinking water? Chemicals and microbes on the lawn can flow back through your home's plumbing and even into the neighborhood water mains under low-pressure conditions. These conditions can occur when fire hydrants are in use, and during water main breaks.



To prevent this backflow contamination, the state Department of Public Health (DPH) requires that we inspect your irrigation system to ensure that an appropriate backflow prevention device is in place. The state DPH also requires these devices be tested annually to ensure proper performance. Please call us at 203-337-5871 to schedule your annual inspection and test.

Water conservation in your home

Our water supply is sufficient to meet your needs, but we still encourage you to conserve this precious natural resource for the good of our environment. There are plenty of simple steps you can take to reduce your water consumption: fix faucet and toilet leaks; turn off the water while shaving or brushing your teeth; run full loads in your dishwasher and clothes washer; water your lawn in early morning; and use a broom to clean debris from your driveway instead of a hose.



Your 2014 Water Quality Report

Customers in the Bridgeport area who have questions about water quality should call us at **203-445-7341**, or outside the Bridgeport area, call **800-832-2373**. Customers also may email us at waterquality@aquarionwater.com, or visit aquarionwater.com.

For other questions, or to report discolored water or other service problems, call **203-445-7310** in the Bridgeport area or **800-732-9678** outside the Bridgeport area.



600 Lindley Street, Bridgeport, CT 06606

Connecticut Department of Public Health Drinking Water Section: **860-509-7333** or ct.gov/dph
U.S. Environmental Protection Agency's Safe Drinking Water Hotline: **800-426-4791** or epa.gov/safewater



In Our Communities: Sustaining the Environment

Last year brought Aquarion some great opportunities for working with cities, towns and organizations across Connecticut on projects aimed at community betterment.

In Stamford, we joined a voluntary private-sector program aiming to lower downtown energy and water use significantly by 2030. Community partners in the effort also include the Business Council of Fairfield County and the Connecticut Fund for the Environment.

The program is believed to be the state's first such major business/environmental collaboration, and a first for New England as well.

On Stamford's border with Greenwich, we teamed with state and local groups to help establish a 391-acre nature reserve along the Mianus River, an important local water resource. The project was part of Audubon Connecticut's Urban Oases Program, designed to create a network of habitats and stop-overs for migrating birds and other wildlife across the state's more developed areas. The Friends of Mianus River Park led this effort, with partners that included Aquarion, the City of Stamford, and many other groups and individual volunteers.

The year also saw completion of a new, five-mile link between the Saugatuck and

Aspetuck trails in Easton and Redding. It creates a continuous and spectacular 18-mile-long hiking trail system in the heart of Fairfield County, including views of Aquarion's Saugatuck Reservoir. Aquarion partnered on this project alongside the Connecticut Department of Energy and Environmental Protection, the Connecticut Forest & Park Association and The Nature Conservancy. More than 120 volunteers contributed more than 1,500 hours to make the new trail a reality.

Earth Day each year sees Aquarion supporting a wide range of environmental projects. For example, in 2014 Aquarion volunteers worked with Urban Roots Bridgeport Community Gardens to rebuild community gardens on Pequonnock Street. Teams cleaned out the old garden

beds, spread fertile new soil, and repaired fencing, all of which allowed community members to plant a variety of crops. They also created a rain garden to conserve water by capturing rain runoff from the site.

Space doesn't allow a listing of all the projects in which we've been part of across the state – everything from educational fairs to children's festivals, to the other exhibit at Connecticut's Beardsley Zoo. There's only room to say one more thing – we're proud and grateful to have been part of them all.



Visit Mystic Aquarium's Beluga Whales Live!

Aquarion is the sponsor of three cameras trained on Mystic Aquarium's exciting beluga whale exhibit, the only one of its kind in New England. Go to aquarionwater.com and click on the cameras at any time during daylight hours to watch the Aquarium's three belugas – Kela, Naku and Nalmark – in the 750,000-gallon, arctic marine environment created just for them.



aquarionwater.com