



# 2023 WATER QUALITY REPORT

## IN THIS REPORT

- 3-4 Water Quality Table
- 5 Monitoring Unregulated Contaminants
- 6 Your Health Is Our Priority
- 7 Lead in Drinking Water: The Facts
- 8 Water Protection and Conservation
- 9 Glossary

*Este informe contiene información importante sobre su agua potable. Pida a alguien que lo traduzca para usted, o hable con alguien que lo entienda.*

# Letter from the President



Donald J. Morrissey  
Aquarion President

Dear Aquarion Customer:

I am pleased to share that in 2023 Aquarion Water Company continued its commitment in delivering high-quality water to our valued customers. Over 174,000 tests conducted across our water systems confirmed that our water consistently meets or surpasses both state and federal water quality standards.

In 2024, the U.S. Environmental Protection Agency (EPA) is expected to announce new maximum contaminant standards for perfluoroalkyl and polyfluoroalkyl substances (PFAS) levels for public water systems. Aquarion has been working hard planning for the investment that will be required to comply with these new regulations. To keep customer rates affordable, Aquarion is seeking federal and state funding in addition to pursuing settlements with the companies that manufactured these chemicals.

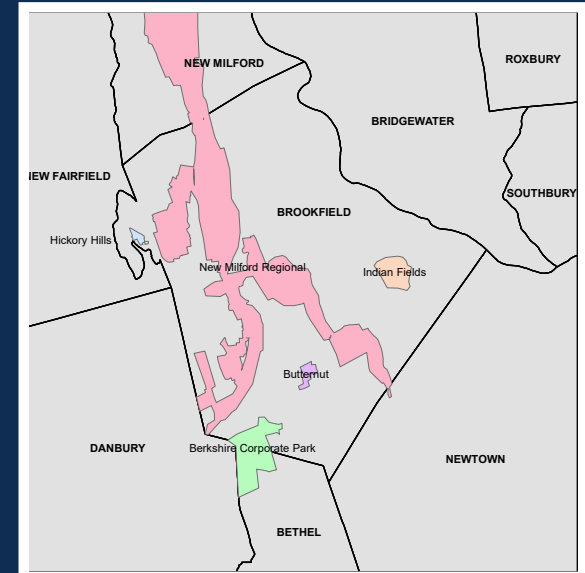
As part of the Lead and Copper Rule Revisions (LCRR), we are also developing an inventory of Aquarion-owned and customer-owned service lines to identify lead service lines in our service area. This inventory marks the initial phase of our efforts to eliminate any lead service lines in our water systems.

Lastly, thank you for your ongoing commitment to water conservation. Given the unpredictable shifts in precipitation, last year's abnormally wet weather could well be replaced by drier weather this year. For some helpful conservation tips, please check out page 8 in this report or visit [www.aquarionwater.com/conserve](http://www.aquarionwater.com/conserve).

With Appreciation,

Donald J. Morrissey

## Areas Served by Butternut System



## Questions About Your Water Quality Report?

Customers who have questions about water quality should call us at **800-832-2373**.

For discolored water, service problems or after-hours emergencies, or to participate in a public meeting, call **800-732-9678**.

Customers may also email us at [waterquality@aquarionwater.com](mailto:waterquality@aquarionwater.com), or visit [www.aquarionwater.com](http://www.aquarionwater.com).

Connecticut Department of Public Health Drinking Water Section:  
**860-509-7333** or [www.ct.gov/dph](http://www.ct.gov/dph).

U.S. Environmental Protection Agency's Safe Drinking Water Hotline:  
**800-426-4791** or [www.epa.gov/safewater](http://www.epa.gov/safewater).

# Water Quality Table

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. Most of these compounds are naturally occurring. 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 here are for detected compounds only.

SUBSTANCE (Units of Measure)	LIKELY SOURCE	MCLG	MCL	COMPLIANCE	TEST DATE	AVERAGE	RANGE
<b>INORGANIC COMPOUNDS</b>							
<b>Barium (ppm)</b>	Erosion of natural deposits	2	2	<b>YES</b>	2021	0.022	0.022
<b>Chromium (ppm)</b>	Erosion of natural deposits	100	100	<b>YES</b>	2021	1	1
<b>Copper (ppm)</b>	Corrosion of household plumbing systems	1.3	AL = 1.3	<b>YES</b>	2021	0.29*	
<b>Lead (ppb)</b>		0	AL = 15	<b>YES</b>	2021	4♦♦	
<b>Nitrate (ppm)</b>	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	10	10	<b>YES</b>	2023	2.533	2.533
<b>Silver (ppm)</b>	Erosion of natural deposits	50	50	<b>YES</b>	2021	1	1

<b>DISINFECTANT</b>							
<b>Chlorine (ppm)</b>	Water additive used to control microbes	MRDLG = 4	MRDL = 4	<b>YES</b>	2023	0.74	0.61 - 0.85

<b>ORGANIC COMPOUNDS</b>							
<b>Haloacetic Acids 5 (ppb)</b>	By-product of drinking water chlorination	NA	60	<b>YES</b>	2023	1	1
<b>Total Trihalomethanes (ppb)</b>		NA	80	<b>YES</b>	2023	7	7

<b>RADIOLOGICALS</b>							
<b>Uranium (ppb)</b>	Erosion of natural deposits	0	30	<b>YES</b>	2019	6	6

Continued on page 4

SUBSTANCE (Units of Measure)	LIKELY SOURCE	MCLG	MCL	COMPLIANCE	TEST DATE	AVERAGE	RANGE
<b>STATE-REQUIRED TESTING — PHYSICAL CHARACTERISTICS<sup>^</sup></b>							
<b>Color (CU)</b>	Natural organic matter such as decaying leaves; naturally occurring iron and manganese	NA	15	<b>YES</b>	2023	1	1 - 3
<b>pH</b>	Naturally occurring; water treatment processes	NA	6.4 - 10.0	<b>YES</b>	2023	7.3	7.1 - 7.4
<b>Turbidity (NTU)</b>	Sediment particles; naturally occurring iron and manganese; soil runoff	NA	5	<b>YES</b>	2023	0.16	0.05 - 0.30

<b>STATE-REQUIRED TESTING — INORGANIC COMPOUNDS</b>							
<b>Chloride (ppm)</b>	Naturally present in the environment	NA	250	<b>YES</b>	2021	72	72
<b>Sodium (ppm)</b>	Water treatment processes; use of road salt; naturally present in the environment	NA	NL = 28	<b>NA</b>	2021	22	22
<b>Sulfate (ppm)</b>	Naturally present in the environment	NA	SMCL = 250	<b>NA</b>	2021	18	18

**FOOTNOTES**

◆ 90th percentile value in copper monitoring. Result is representative of customer sampling stagnant water. No locations exceeded the action level for copper. Highest 90th percentile value shown.

◆◆ 90th percentile value in lead monitoring. Result is representative of customer sampling stagnant water. No locations exceeded the action level for lead. Highest 90th percentile value shown.

▲ Measured at representative locations within the distribution system.

# Other Monitored Substances

## Hardness in Your System

Hardness is a measure of naturally-occurring minerals, like calcium and magnesium, dissolved in the water. Hardness does not have any negative health effects, so it is not regulated by the EPA or the Connecticut Department of Public Health (CTDPH). These minerals can create a buildup on fixtures and appliances. Please refer to fixture and appliance manufacturer recommendations on addressing buildup.

HARDNESS (gpg)	
TEST DATE	2023
AVERAGE	16
RANGE	16
SOURCE	Erosion of natural deposits



## Monitoring Unregulated Contaminants

Unregulated contaminants are elements that currently have no health standards assigned for drinking water. This table shows only the compounds detected in your system. To learn about the full list of unregulated contaminants included in the monitoring program, please visit [www.epa.gov/dwucmr](http://www.epa.gov/dwucmr).

SUBSTANCE (Units of Measure)		DETECTED LEVEL		
UNREGULATED CONTAMINANTS	TEST DATE	AVERAGE	RANGE	SOURCE OF CONTAMINANT
PFOA (ppt)	2023	3	2.4 - 3.8	Discharges and emissions from industrial sources; manufacturing and use of consumer products
PFOS (ppt)	2023	4	2.3 - 4.4	
PFBS (ppt)	2023	2	ND < 2 - 3.9	
PFHxA (ppt)	2023	ND < 2	ND < 2 - 2.7	

# Your Health Is Our Priority

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 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 [800-426-4791](tel: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 Butternut System supply is drawn from four wells. It serves about 80 people and has an average customer demand of 6,400 gallons of water per day (GPD).

## How Is Your Water Treated?

Water from the wells is filtered naturally underground, then disinfected before it is delivered to 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 meet or exceed state and federal health and treatment standards. In addition, there are no reported cases of waterborne disease due to Cryptosporidium in Aquarion Water Company's drinking water.

## Source Water Assessment Report

CTDPH states in its Source Water Assessment Report that the public drinking water sources in the Butternut System have a moderate susceptibility to potential contamination. To read the CTDPH reports, visit [ct.gov/dph](http://ct.gov/dph).

## Copper

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 doctor.

Major sources of copper in drinking water include corrosion of household plumbing systems and erosion of natural deposits.

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

## Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people such as those with cancer undergoing chemotherapy, people 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/Centers for Disease Control and Protection 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](tel:800-426-4791).

# Lead in Drinking Water: The Facts

The EPA and CDPH have established extensive regulations for water utilities to follow regarding lead. If lead is present in drinking water, it can cause numerous harmful effects on a person's health. The EPA has determined there is no safe level of lead.

Aquarion maintains a regular schedule for lead monitoring.

## Health Effects

Lead is especially harmful for infants and young children, causing developmental delays, learning difficulties, irritability, loss of appetite, weight loss, sluggishness, fatigue, abdominal pain, vomiting, constipation and hearing loss.

Effects on adults may include high blood pressure, abdominal pain, constipation, joint pains, muscle pain, decline in mental functions such as abstract thinking and focus, numb or painful extremities, headache, memory loss, mood disorders, fertility issues in men, and miscarriage or premature birth in pregnant women.

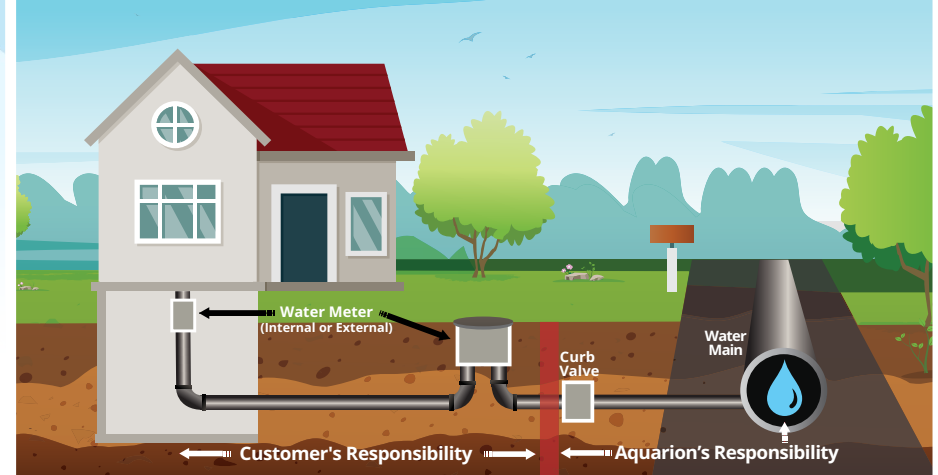
## The EPA's Advice

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.

Customers can minimize the potential for lead exposure when water has been sitting for several hours by running the tap for 3 to 5 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.

## What to Do About Lead in a Service Line

A service line is the pipe that connects a customer's premises to Aquarion's water main in the street (see diagram on page). Homes built before 1986 may have lead service lines (with a few exceptions, most were installed in homes built before 1930), and those built before 1986 may have lead solder and brass fittings (which may have a lead content).



Customer and Aquarion responsibilities shown are representative for most customers.

A lead service line can be the primary source of lead in your drinking water, because there is a much greater surface area where lead contacts the water, compared to lead-soldered pipe joints and leaded brass fixtures. If your house or other structure was built prior to 1988, you should check the service line where it enters the wall of your basement to see if it is made of lead. If it is a lead line, contact Aquarion at [800-732-9678](tel:800-732-9678) for advice on replacing it.

This will help reduce your potential exposure to lead in drinking water.

## Other Precautions You Can Take

There are other ways to reduce the risk of lead exposure from your water pipes:

- ✓ If you have not used any of your faucets for a number of hours (for example, overnight or while you are at work), run the water for 3 to 5 minutes. This will bring in fresh water from our water main, which contains no lead.
- ✓ Always use cold water for drinking, cooking and preparing baby formula.
- ✓ Periodically remove and clean the faucet screens/aerators. While doing so, run the tap to eliminate debris.

Aquarion offers more detailed information on lead in drinking water and how to minimize exposure on our website at [www.aquarionwater.com/learnaboutlead](http://www.aquarionwater.com/learnaboutlead). You also can call the Safe Drinking Water Hotline at [800-426-4791](tel:800-426-4791) or go to [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

# Water Protection and Conservation

## How Aquarion Protects Your Drinking Water

Aquarion Water Company is committed to providing the highest quality water to our customers. Toward that end, we conducted 174,119 water quality tests in 2023 across all our Connecticut systems, and we regularly inspect businesses, farms, homes and other sites that could affect our water supply.

Here are some examples of pollutants that may wash into surface water or seep into groundwater:

- Microbial contaminants from septic systems
- Inorganic contaminants such as road salt or metals
- Pesticides and herbicides from residential uses
- Organic chemical contaminants, including synthetic and volatile organic chemicals



## You Can Protect Water Too:

- Ensure that your septic system works correctly
- Use chemicals and pesticides sparingly
- Dispose of waste chemicals and used motor oil properly
- Report illegal dumping, chemical spills or other polluting activities to the state Department of Energy and Environmental Protection's 24-hour hotline at [860-424-3338](tel:860-424-3338), call Aquarion at [800-732-9678](tel:800-732-9678), or call your local police

## Conservation

By reducing water consumption, Aquarion customers have made outstanding progress in ensuring that our area has enough water, no matter what the skies deliver. Many thanks to all the customers who cut back on outdoor sprinkler irrigation and other uses, helping to save approximately 5 billion gallons of water across our systems over the last six years. There's still more to do, though. Here are some easy tips on what everyone can do to conserve the supply of this irreplaceable resource:

### Reduce excessive irrigation

Use a WaterSense labeled smart irrigation controller that adjust watering schedules based on weather conditions, soil moisture levels, and plant requirements.

### Rely more on the sky

Put a rain barrel under a down-spout to capture rainwater for your garden.

### Forget fertilizing

Many use salts that make your lawn less drought-resistant.



### Apply mulch

Adding a layer of mulch around your plants helps retain moisture, reducing the need to water as often.

### Remedy a leaky toilet

Watch our step-by-step video at [www.aquarionwater.com](http://www.aquarionwater.com) about finding and fixing leaks. Better yet, upgrade to a new, WaterSense labeled model to save three or more gallons with every flush.

For more tips, visit [www.aquarionwater.com/conserve](http://www.aquarionwater.com/conserve).





# Glossary

These terms may appear in your report.

## Definitions

< - Less than

> - Greater than

**90th Percentile** - Out of every 10 homes sampled, 9 were at or below this level. This number is compared to the action level to determine lead and copper compliance.

**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**

**gpg - grains per gallon**

**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.

**MRDL - Maximum Residual Disinfectant Level:** 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.

**MRDLG - Maximum Residual Disinfectant Level Goal:** 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.

**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)

**ppt - parts per trillion,** or nanograms per liter (ng/L)

**SMCL - Secondary Maximum Contaminant Level**

**TT - Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water.

Equal to a drop of water in a 10 gallon fish tank.

ppm - parts per million

ppb - parts per billion

Equal to a drop of water in a 10,000 gallon swimming pool.

Equal to a drop of water in 35 Junior Olympic pools.  
(10 million gallons)

ppt - parts per trillion



MYSTIC  
AQUARIUM

MYSTIC  
SEAPORT  
MUSEUM



Stamford Museum  
& Nature Center



Reel to Real  
Diversity Film Series

## 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. Learn more at [www.aquarionwater.com/freetickets](http://www.aquarionwater.com/freetickets).