

Dear Consumer:

At the Regional Water Authority (RWA), we take great pride in providing exceptional drinking water and reliable service to you and your family.

Our award-winning annual Water Quality Reports are testaments to our unwavering commitment to transparency and accountability. They include details such as where your water comes from, what it contains, and how it compares to standards set by federal and state regulatory agencies. We value your trust and want you to understand the efforts we continuously make to protect our water resources and improve the water treatment process to ensure the high quality of your drinking water.

I have the pleasure of reporting that RWA water met or was better than the standards set by the U.S. Environmental Protection Agency and the Connecticut Department of Public Health in 2023. The effort and commitment made by our employees to ensure we are providing you with reliable, high-quality and affordable water is demonstrated throughout this report.

Water quality, service, reliability, affordability and environmental sustainability remain at the core of what we do at the RWA. We work hard every day to fulfill our higher purpose: to make life better for

people by delivering water for life. That has been our commitment for 175 years, and it is our promise for the future.

I hope you will find this Water Quality Report useful and informative. If you have any questions about the report or your drinking water quality, I encourage you to contact our Customer Care team at 203-562-4020 or write to ask.info@rwater.com.

Sincerely,

This report contains important information about your drinking water.

If you require this report in Spanish, please visit rwater.com.

Este reporte contiene información importante sobre su agua potable.
Si necesita este reporte en Español, consulta rwater.com.

Attention: Landlords, Apartment Owners and Property Managers

Please share a copy of this report with your tenants and residents.

South Central Connecticut Regional Water Authority

President & Chief Executive Officer

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Larry L. Bingaman

90 Sargent Drive New Haven, CT 06511-5966

Call Us: **203-562-4020** Monday – Friday, 8 am. – 5 p.m.

Write Us: ask.info@rwater.com

A five-member Authority and a 21-member Representative Policy Board (RPB) oversee our operations. The Authority meets on the fourth Thursday of each month at 12:30 p.m., and the RPB meets on the fourth Thursday of the month at 6:30 p.m. Please call to confirm meeting day and time.



Where Your Water Comes From

The water cycle begins when water falls to the ground as rain, sleet or snow. Water then flows through the watershed to reservoirs or soaks into the ground and is tapped by our wells.

We have 10 active reservoirs and three aquifers. The reservoirs are filled by rivers. Aquifers are natural sand, gravel and bedrock areas below the surface of the ground that are saturated with water, typically from rainfall.

We draw most – about 88 percent – of our water from the 10 reservoirs. We pump the remaining 12 percent of the water from wells in Cheshire, Hamden, Derby and Seymour.

Drinking water is distributed to the region through a 1,700-mile-long network of pipes, pumping stations and storage tanks. Because of this interconnected system, water from two or more sources may be delivered to some neighborhoods. For example, water supplied to parts of Orange and West Haven may come only from Lake Gaillard or only from West River, while water in other neighborhoods of these towns may come from both sources.

What We Do to Make Your Water Safe to Drink

Protect: Our source water protection program focuses on pollution prevention and watershed management. Source water is untreated water from lakes, rivers, streams, ponds, reservoirs, aquifers and springs that serve as a community's water source. Protecting these supplies is one of the best ways to prevent drinking water from becoming polluted. We own more than 27,000 acres of land in the Greater New Haven region and manage it carefully. We vigilantly monitor the quality of the water and all activity on the surrounding land, constantly watching for potential contamination of our supplies.

Here's how you can help us protect source water:

- Pick up after your pet.
- Never dump anything in streams, lakes or storm drains.
- ► Compost yard waste and use natural fertilizers.
- ► Check vehicle fluid levels and repair leaks.
- Properly dispose of household hazardous waste; visit rwater.com to learn if your community participates in HazWaste Central, our permanent collection facility.

Treat: Aquifer water is naturally filtered underground. Reservoir water is filtered at our treatment plants. Water from both reservoirs and aquifers is disinfected with chlorine to kill microbes that can cause illness. We add fluoride to prevent dental cavities, as required by Connecticut Department of Public Health (DPH) regulations, and phosphate to minimize corrosion of pipes.

Distribute: We carefully maintain our extensive distribution system to ensure that high-quality water is available on tap anytime you need it.

Monitor: We continually monitor the water treatment process and verify the high quality of our water by testing samples in our state and federally certified laboratory. Based on these test results – which are regularly reported to state health officials – we know that the water we deliver to you meets or is better than all state and federal water quality standards.

Source Water Assessment Information

A source water assessment lists possible contaminants that might affect the quality of your water sources. You can find the DPH Drinking Water Section's assessment of the RWA's sources of water at https://www.dir.ct.gov/dph/Water/SWAP/Community/CT0930011.pdf.



Transforming Source Water into Drinking Water

Turning raw water into drinking water requires several treatment and purification steps.



Raw Surface Water



Rapid Mixing with Alum (Coagulation)



Slow Mixing for Particle Binding (Flocculation)



Settling of Larger Particles (Sedimentation)



Filtering of Smaller Particles (Filtration)



Addition of Corrosion Inhibitor (Prevention)



Addition of Chlorine (Disinfection)



Finished Drinking Water

Cross Connection

The State of Connecticut and RWA regulations require that the RWA conduct periodic inspections of properties for potential cross connection situations. A cross connection exists if there is a physical connection between a public water system and a contaminant source. A potential cross connection can occur when you use your garden hose to fill a swimming pool, apply pesticides or operate your irrigation system at the same time as the water system experiences a significant pressure drop, such as a water main break. This can pose a significant health threat to you and your family. The RWA conducted over 2,200 inspections and surveys, and tested more than 9,600 backflow prevention devices in 2023. Safeguard your water: keep the end of a hose clear of possible contaminants and don't submerge it in sinks, tubs, buckets or pools; buy and install inexpensive backflow prevention devices for all threaded faucets around your home; and don't use spray attachments without a backflow prevention device.

How Safe Is Your Water?

In 2023, the RWA collected more than 8,000 water samples and conducted over 63,000 tests to ensure that high-quality water reached your tap. The 2023 test results presented in this report demonstrate that your drinking water meets or is better than the water quality standards established by the U.S. Environmental Protection Agency (EPA) and the DPH.

What the EPA Says About Contaminants and Health Effects

The EPA wants you to know that 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 can be obtained by calling the EPA's Drinking Water Hotline at 1-800-426-4791 or by visiting epa.gov/safewater.

The Maximum Contaminant Levels (MCLs) established by the EPA are very stringent. A person would have to drink two liters of water at the MCL every day for a lifetime to have a one-in-a-million chance of experiencing the described health effect.

The Maximum Contaminant Level Goals (MCLGs) established by the EPA are also very rigorous. MCLGs are the measure of a contaminant in drinking water below which there is no known or expected risk to health. Think of MCLGs as allowing for a margin of safety.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as those undergoing chemotherapy, those who have received organ transplants, people with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk of infection. These people should seek advice from their healthcare providers about drinking water.

Sources of Contaminants

In order to ensure that tap water is safe to drink, the EPA and the DPH set regulations that limit the amount of certain contaminants in water provided by public water systems. For more information, visit the DPH website at https://portal.ct.gov/dph.

Water is the universal solvent. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals. Generally, untreated source water may include the following kinds of contamination:

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

Inorganic compounds, such as salts and metals, can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges or farming.

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

Organic chemical compounds, including synthetic and volatile organic chemicals, which are by-products of industrial processes, can come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants can be naturally occurring or may be the result of oil and gas production and mining activities.

Radon

Radon is a radioactive gas that you cannot see, taste or smell. It is found throughout the U.S. Radon can move up from the ground and into a home through cracks and holes in the foundation. It can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water during showering, washing dishes and other household activities. In most cases, radon entering the home through tap water is a small source of all the radon in indoor air.

Radon is a carcinogen. Breathing air containing radon over long periods can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air. Testing is inexpensive and easy. If the level of radon in your air is four picocuries per liter (pCi/L) or higher, you need to take steps to reduce it. For additional information, call Connecticut's radon program or EPA's Radon Hotline at 1-800-SOS-RADON.

Although state and federal regulations do not require monitoring, we regularly test for radon in our Cheshire, Hamden, Derby and Seymour wells. Our test results show that we meet existing health-based guidelines. Because radon dissipates quickly in the open air, it is not a concern with reservoir water.

Lead and Copper

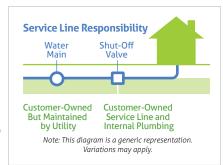
The EPA developed the Lead and Copper Rule (LCR) to protect public health by minimizing lead and copper levels in drinking water. The LCR established an action level of 15 parts per billion (ppb) for lead and 1.3 parts per million (ppm) for copper, based on the 90th percentile level of tap water samples. This means that no more than 10 percent of the samples can be above either action level. The MCLG for lead is zero; the MCLG for copper is 1.3 ppm.

Federal regulations require that the RWA analyze water samples from a minimum of 50 homes, though we have consistently monitored more sites. These samples help us assess the need for, or the effectiveness of, corrosion-control treatment, which helps prevent lead from pipes and plumbing from leaching into drinking water. The table on page 6 summarizes the results of lead testing. In 2023, the RWA conducted its latest round of lead and copper sampling. The results showed that the 90th percentile value was well below the action level set by the EPA. The RWA remains in compliance with the LCR.

What Can I Do in My Home to Reduce Exposure to Lead?

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The RWA is responsible for providing high-quality drinking water, but cannot control the variety

of materials used in plumbing components in home construction. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for up





to five minutes or until it becomes cold or reaches a steady temperature. Use only cold water for drinking, cooking and making baby formula.

If you are concerned about lead in your water, you should consider having your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the EPA's Safe Drinking Water Hotline at 1-800-426-4791 and epa.gov/safewater/lead.

Copper

The major sources of copper in drinking water are the corrosion of household plumbing systems and the erosion of natural deposits. Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount 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. The table on page 6 summarizes the results of copper testing. To minimize exposure to copper, please follow the previous flushing instructions for lead.

Sodium

Sodium is an essential nutrient in your diet. It helps maintain the right balance of fluids in your body and transmit nerve impulses to your muscles. Sodium in drinking water normally presents no health risks, since 99 percent of your daily salt intake is from food and only about one percent is from water. However, elevated sodium in water may be considered a health concern for those on a restricted salt diet. If you have been placed on such a diet, please inform your physician that our water can contain as much as 38 milligrams of sodium per liter. For comparison, whole milk has a sodium content of 530 milligrams per liter.

Water Quality Analysis and Results for 2023

All test results well below allowable levels

Drinking water is unique – it is the only life-sustaining product reliably delivered by water utilities to your home around the clock for your convenient use on demand. As shown in the tables on the following pages, the water that the RWA delivers to your tap meets or is better than all federal and state requirements for safe drinking water. Of the more than 100 regulated and unregulated substances for which we test annually, only a few have been detected, and the detection levels were well below allowable limits.

Drinking water quality report highlights:

- ➤ The RWA's drinking water quality and its stringent monitoring program met or were better than all state and federal regulatory standards in 2023.
- ➤ Our professionals conduct many routine tests beyond those reported here to monitor and optimize water quality. Additional testing is focused on building a better understanding of our water quality from source to tap.
- Our water treatment systems employ multiple barriers to protect our water from disease-causing microorganisms and other contaminants.
- ➤ All of our treatment plant operators maintain a Class IV Water Treatment Operator Certification, the highest standard in the state.
- ➤ We continuously take steps to deliver even higherquality drinking water to your tap through technology and innovation.
- ▶ In 2023, we devoted more than \$42 million to building and supporting our water system infrastructure.



How to Read the Tables:

The following tables show the results of the RWA's water quality analyses on its treated drinking water delivered from its water treatment facilities and distribution system. Unless otherwise noted, the data is from tests performed

between January 1 and December 31, 2023. The tables contain the name of each water quality parameter, the highest level allowed by regulation, the ideal goals for public health, the amount detected, the typical source of each parameter and key units of measurement.

2023 Water Quality Results

Systemwide Levels of Regulated Contaminants

Parameter	MCL	MCLG	Highest Level Detected During 2023	Typical Sources	Met Regulatory Standards
Total Coliform Bacteria	Presence of coliform bacteria not to exceed 5.00% of monthly samples	0%	1.05% August 2023	Naturally present in the environment	Yes
Parameter	MCL	MCLG	Average Level and Range Detected During 2023	Typical Sources	Met Regulatory Standards
Total Trihalomethanes (TTHM)	80 ppb Average	N/A	35 ppb Average Range 11.1 – 82.6	By-product of drinking water chlorination	Yes
Total Haloacetic Acids (THAA)	60 ppb Average	N/A	31 ppb Average Range 16.9 – 49.8	By-product of drinking water chlorination	Yes
Parameter	MCL	MCLG	Average Level and Range Detected During 2023	Typical Sources	Met Regulatory Standards
Chlorine	4 ppm	4 ppm	1.5 ppm Range 0.01 – 2.2	Water additive used to control microbes	Yes
Barium	2 ppm	2 ppm	0.082 ppm Range 0.006 – 0.287	Erosion of natural deposits	Yes
Chloride	250 ppm	N/A	26.3 ppm Range 10.7 – 109	Naturally present in the environment	Yes
Fluoride	4 ppm	4 ppm	0.65 ppm Range 0.62 – 0.71	Water additive required by DPH that promotes strong teeth; erosion of natural deposits	Yes
Nitrate (as Nitrogen)	10 ppm	10 ppm	0.27 ppm Range ND – 1.68	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	Yes
Sulfate	N/A	N/A	14.4 ppm Range 7.6 – 38.8	Erosion of natural deposits	Yes
Total Chromium	0.1 ppm	0.1 ppm	0.0003 ppm Range ND – 0.002	Naturally present in the environment	Yes
Turbidity (Reservoirs)			99.8% 0.068 NTU Range ND – 1.0	Corrosion of household plumbing systems, erosion of natural deposits	Yes

Systemwide Levels of Regulated Contaminants (CONTINUED)

Parameter Total Organic Carbon	MCL TT = Removal Ratio ≥ 1 ^(b)	MCLG N/A	All Reservoirs Average 1.81 Range 1.22 – 2.60	Typical Sources Naturally present in the environment	Met Regulatory Standards Yes
Parameter	MCL	MCLG	90 th Percentile ^(c)	Typical Sources	Met Regulatory Standards
Lead	AL=0.015 ppm ^(d)	0	0.0006 ppm Number of sites above AL = 0 Analyzed 2023 ^(e)	Corrosion of household plumbing systems; erosion of natural deposits	Yes
Copper	AL=1.3 ppm ^(d)	1.3	0.32 ppm Number of sites above AL = 0 Analyzed 2023 ^(e)	Corrosion of household plumbing systems; erosion of natural deposits	Yes

Systemwide Levels of Regulated Contaminants in Aquifers

Parameter	М	MCL		Percentage Compliance of 4-Log Removal During 2023 All Aquifers	Typical Sources	Met Regulatory Standards
Microbial Pathogens ^(f)	4-log rem	TT= 100 percent of 4-log removal based on chlorine residual		100%	Naturally present in the environment	Yes
Parameter	MRDL	MRDLG	Units	Average Level and Range Detected During 2023 All Aquifers	Typical Sources	Met Regulatory Standards
Turbidity	TT = 5 NTU	N/A	NTU	0.09 Range ND – 1.46	Soil runoff	Yes

- (b) Ratio is a value derived from monthly TOC percent removal calculation
- (c) Calculated value derived from the analysis performed on high priority customers
- (d) Action level is based on the calculated 90th percentile
- (e) Test frequency as determined by state and federal regulatory agencies
- (f) Treatment that reliably achieves at least 99.99 percent (4-log) treatment of viruses using inactivation

During 2023, the RWA participated in the fifth phase of the EPA's Unregulated Contaminant Monitoring Rule (UCMR5). Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring assists the EPA in determining the occurrence of these compounds and whether or not regulation is warranted. Detections from 2023 are summarized in the following table. For general information on UCMR5, visit www.epa.gov/dwucmr or contact EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Systemwide Levels of Unregulated Contaminants

Parameter	AL	Units	Average Level and Range Detected During 2023 – All Aquifers	Typical Sources	Met Regulatory Standards
Radon	5000	pCi/L	539 Range ND – 1873	Naturally present in the environment	Yes
Parameter	MCL	Units	Average Level and Range Detected During 2023	Typical Sources	Met Regulatory Standards
Manganese	Second MCL 0.05 pp	ppm	0.04 Range ND – 0.16	Erosion of natural deposits	Yes
Sodium	Notifica Leve 100 pp	l ppm	18.7 Range 10.5 – 41.4	Erosion of natural deposits; road salt runoff	Yes
Parameter	MCL	Units	Average Level and Range Detected During 2023	Typical Sources	Met Regulatory Standards
Bromodichloromethane	N/A	ppb	6.0 Range 2.6 – 15.6	By-product of drinking water chlorination	N/A
Chloroform	N/A	ppb	28.5 Range 12.1 – 64.2	By-product of drinking water chlorination	N/A
Dibromochloromethane	N/A	ppb	0.9 Range ND – 2.8	By-product of drinking water chlorination	N/A
Monochloroacetic Acid	N/A	ppb	3.4 Range 1.0 – 8.4	By-product of drinking water chlorination	N/A
Dichloroacetic Acid	N/A	ppb	10.0 Range 3.8 – 15.7	By-product of drinking water chlorination	N/A
Trichloroacetic Acid	N/A	ppb	16.4 Range 8.7 – 28.0	By-product of drinking water chlorination	N/A
Dibromoacetic Acid	N/A	ppb	0.14 Range ND – 0.8	By-product of drinking water chlorination	N/A
Monobromoacetic Acid	N/A	ppb	1.1 Range ND – 1.8	By-product of drinking water chlorination	N/A

Unregulated Contaminant Monitoring Rule 5 Results

Parameter	MCL	Units	Average Concentration and Range	Typical Sources	Met Regulatory Standards
PFOA	N/A	ppt	5.8 Range 5.2 – 6.3	Industrial processes, consumer goods	N/A
PFOS	N/A	ppt	5.4 Range 4.0 – 8.1	Industrial processes, consumer goods	N/A
PFBS	N/A	ppt	3.3 Range 3.2 – 3.4	Industrial processes, consumer goods	N/A

Terminology and Abbreviations

The following definitions will help you better understand the water quality results presented in this report.

AL Action Level

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

BDL Below Detection Level

Calculated value resulting in below detection level.

MCL Maximum Contaminant Level

The highest level of a contaminant allowed in drinking water. Maximum Contaminant Levels are set as close to the Maximum Contaminant Level Goal 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 not a known or expected risk to health. Maximum Contaminant Level Goals allow for a margin of safety.

MRDL Maximum Residual Disinfectant Level

The level of disinfectant added for water treatment that may not be exceeded at a consumer's tap without adverse health effects.

MRDLG Maximum Residual Disinfectant Level Goal

A non-enforceable health goal. It does not reflect the benefits of adding disinfectant for the control of waterborne microbial contaminants.

mg/L Micrograms per Liter

A unit of concentration for dissolved substances based on their weights.

N/A Not Applicable

Not applicable or required; EPA has not established limits for these substances.

ND Not Detected

Not detected.

NTU Nephelometric Turbidity Units

A measure of clarity of water. Turbidity more than five NTU is just barely noticeable to the average person.

ppb Parts per Billion

A measure of the concentration of a substance roughly equivalent to half a teaspoon of water in one Olympic-size swimming pool.

ppm Parts per Million

A measure of the concentration of a substance roughly equivalent to one-half of a dissolved tablet of aspirin in a full 50-gallon bathtub of water.

ppt Parts per Trillion

Our PFAS testing measures in parts per trillion, which is an amount roughly equivalent to one droplet of water in a 43-foot-deep pool covering a football field.

pCi/L Picocuries per Liter

A measure of radioactivity in water.

TT Treatment Technique

A required process intended to reduce the level of contaminants in drinking water.



Learn More



Use Water Wisely

Water is a precious resource. To ensure we have sufficient water to meet the needs of all our consumers and put less stress on local water sources and the environment, we encourage consumers to take the following steps, which can also lower your water bill:

- Fix dripping faucets and leaky toilets.
- ▶ Run dishwashers and washing machines with full loads.
- Turn the water off when you brush your teeth or shave.
- Install water-efficient appliances; look for the WaterSense label.
- ▶ Water your lawn and plants in the early morning or later in the evening.
- ▶ Use a broom instead of a hose to clean outdoor areas.



For more tips, visit us at **rwater.com** or the EPA at **epa.gov/WaterSense**.

Discover Nature's Wonderland

The RWA has nine recreation areas in 13 communities throughout Greater New Haven that offer great water views and four seasons of fun. With an RWA recreation permit, you can enjoy miles of wide, well-kept trails through a wilderness that is just minutes from your home. We provide easy-to-read trail maps and offer special family events such as nature walks and fishing derbies. And we offer discounts for senior citizens, veterans, students and people with disabilities. Buying a recreation permit is easy; visit us at rwater.com or call us at 203-401-2654.



Explore the Water World

We offer virtual and in-person educational programs for pre-K to eighth grade students across our district, using water as a teaching tool inside and outside the classroom. Our educators love teaching young people about the importance of water and a healthy environment to the community. To schedule a free program, please call us at 203-777-1142.



Safeguard Water Quality

HazWaste Central helps area residents protect water quality by safely disposing of household hazardous waste. Located at our headquarters at 90 Sargent Drive in New Haven, HazWaste Central is open 9 a.m. until noon on Saturdays, May through October. To see if your community participates and to find out what household wastes can be dropped off, visit us at **rwater.com** or call 203-401-2712.



Protect Your Pipes

Our PipeSafe protection programs can help you avoid unexpected, costly repairs to your underground water, sewer and septic lines, and in-home plumbing. These programs offer the peace of mind that comes with knowing that you are covered for repair costs up to \$6,500 and the hassle of finding qualified contractors. For more information, visit us at rwater.com or call 203-562-4020.





South Central Connecticut Regional Water Authority 90 Sargent Drive, New Haven, CT 06511-5966

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DID YOU KNOW?

In 2023, our consumers used approximately

15 billion gallons of water.

That means we are producing an average of 43 million gallons per day of safe, clean water for our 430,000 consumers.

When Was the Last Time You Got a Bottled Water Quality Report?

