



Wallingford Water Division

2023 Water Quality Report



For further assistance call:

Water Quality Information
203-949-2666

Water Operations
203-949-2666

Water & Sewer Engineering Section
203-949-2672

Billing Information
203-949-2660

General Manager
203-949-2670

Emergency Service After Hours
203-265-5055

Dear Consumer:

The Wallingford Water Division presents to you our Water Quality Report for 2023. **As in previous years, the Division is pleased to report that the water provided to our 13,657 customers meets all applicable standards.** A continual effort to maintain and upgrade our water treatment and delivery system enables the Division to provide reliable service to the community. We also want to encourage your help in protecting Connecticut's valuable water resources and thank you for your previous efforts. Information is provided in the "What Can I Do To Help?" section of this report that will aid all of us in protecting our valuable drinking water supplies today and for future generations.

We encourage you to review this report in order to learn more about the water you drink, its sources, and the programs we provide to maintain water quality. Please telephone our Water Quality Office at 203-949-2666 if you have any questions about the information provided.

The Wallingford Water Division encourages public participation and input into decisions that may affect the quality of our water. Meetings of the Public Utilities Commission (PUC) are typically held on the first and third Tuesdays of each month beginning at 6:00 p.m. in the Conference Room at the Wallingford Electric Division, located at 100 John Street, Wallingford. Meeting announcements and agendas are available at the Town Clerk's Office in Town Hall, located at 45 South Main Street, Wallingford and on the Town's website at www.wallingfordct.gov.

The Division also offers a variety of programs for its customers and residents of the Town, including limited recreational use of Mackenzie Reservoir for fishing, water conservation education and tours of the Pistapaug Water Treatment Plant. Information on conserving water is provided in customer bills and is also available on the Town's website. Please contact the Business Office at 203-949-2666 with further questions.

Where does my water come from?

The Wallingford Water Division provides potable water to approximately 88% of the Town's population including the majority of the industrial and commercial facilities. About 95% of the supply originates from four surface water reservoirs in Wallingford, Durham and Guilford with watersheds extending into Meriden and North Branford. The balance comes from three groundwater sources in the Quinnipiac River Valley.

The land surrounding a reservoir that collects precipitation can be described as a watershed. Similarly, the earth beneath a groundwater supply well is called an aquifer.



Protecting Your Source Water

Water supply sources from rivers, streams, lakes, ponds, springs and wells are treated to supply drinking water to your tap or into a bottle. Pollution on the land can pose a threat to our aquifers and watersheds as well as to Long Island Sound. As water passes over the surface of the ground or through it, substances such as salts, metals, oils, bacteria, fertilizers and pesticides can contaminate it.

Source water assessments of the Town's water supplies by the Drinking Water Section of the Connecticut Department of Public Health (DPH) include ratings of their potential for contamination, but do not necessarily imply poor water quality. These reports show that our reservoirs have low susceptibility, while our groundwater sources range from low to high.

Updated assessment reports can be found on the DPH website:

www.dir.ct.gov/dph/Water/SWAP/Community/CT1480011.pdf

Mailing address: State of Connecticut Department of Public Health, Drinking Water Division, 410 Capitol Avenue - MS#12 DWS, P.O. Box 340308, Hartford, CT 06134

The Division takes source water protection seriously by monitoring its quality and all activities on the land surrounding reservoirs and wells, paying close attention to potential sources of contamination. Additionally, we work with the Town's Health and Planning and Zoning Departments to resolve any compliance issues.

What can I do to help?

Even if you don't live on land that drains into a reservoir or an aquifer, precipitation from where you live does flow into some type of water body. Please consider the following:

- ❖ Limit the use of lawn chemicals, especially before heavy rains that can wash them into storm drains.
- ❖ Never use phosphorous-containing fertilizer. From December through March, it is against the law. Phosphorous is generally not needed for established lawns.
- ❖ Pick up pet waste and dispose of in the trash.
- ❖ Never pour used motor oil or antifreeze into a storm drain or into a household drain. Dispose of these fluids, and household hazardous waste, at HazWaste Central, 90 Sargent Drive, New Haven, Saturdays from mid-May through the end of October, 9 a.m. to 12 noon. Telephone 203-401-2712, or visit www.rwater.com/hazwaste for more information.
- ❖ If you have a septic tank, have it cleaned and inspected at least once every three years; correct problems as soon as possible.
- ❖ Report muddy runoff from construction sites to our Water Quality Office (203-949-2666) or to the Town's Planning and Zoning Department (203-294-2090).





Treatment

All water entering the distribution system from our surface water supplies is treated at our modern water treatment plant.

Placed into operation in 1993, the Pistapaug Water Treatment Plant is rated to treat up to 12 million gallons per day. This plant employs a clarification process and mixed media filters to remove finely suspended particles and microbial contaminants from the source water. After filtering the water, the pH is adjusted and a corrosion inhibitor, fluoride and a disinfectant are added.

Groundwater supplies are also treated with fluoride, corrosion inhibitors, and chlorine. Well No. 2 has an air stripping tower for removal of volatile organic compounds, and manganese is removed from Well No. 3 by a greensand filtration system.

Distribution

Following treatment, treated water moves through a 200-mile network of pipes to customers' homes and businesses. These pipes range in size from 1¼ inches to 24 inches in diameter. Within this distribution system there are six water storage tanks that help to provide needed water pressure, daily storage and fire protection. To move water into these water storage tanks, the Water Division operates and maintains four pumping stations.

In an effort to ensure water quality within this pipe network, the Water Division regularly monitors numerous sites within the distribution system and conducts inspections of customer premises for cross-connections that could potentially introduce contaminants into our drinking water.

The Division has a staff of Engineers, Water Quality Inspectors and State Certified Operators who help to ensure that our water supplies remain safe to drink.

Water Quality Monitoring

Sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and groundwater wells. As water travels over the land surface or through the ground it dissolves naturally occurring materials and in some cases radioactive material, and can transport substances resulting from the presence of animal or human activity. Treatment processes, such as filtration and chlorination, minimize the levels of dissolved minerals and other foreign materials.

Contaminants that may be present in source water include: *microbial contaminants*, such as viruses and bacteria, which may come from septic systems, agricultural livestock operations, and wildlife; *inorganic contaminants*, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, domestic wastewater discharges, mining, and farming; *pesticides and herbicides*, from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; *organic chemical contaminants*, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and can come from gas stations, urban stormwater runoff and septic systems; and *radioactive contaminants*, which can be naturally occurring or the result of mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (EPA) and the Connecticut Department of Public Health (DPH) promulgate regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.



Each year the Wallingford Water Division performs nearly 50,000 water quality analyses for approximately 125 different contaminants in order to verify the safety and quality of our drinking water. These analyses are performed around the clock, 365 days a year, and include samples collected from our water sources, treatment facilities, and water within the distribution system. **In all respects our water is safe to drink and meets or exceeds the standards required.** Our modern water treatment plants and vigilant maintenance of the transmission and distribution system help to protect the high quality of water today and in the future.

In addition to the required testing, the Water Division takes a proactive approach to assuring a safe drinking water supply for the future. We do this by monitoring for a variety of contaminants in addition to those currently regulated by state and federal governments. Other programs administered by the Wallingford Water Division to protect water quality include annual watershed inspections, aquifer inspections and a vigorous cross connection inspection and testing program.



Finished Water Quality Results

The data in the table on the next page is the result of sampling for the calendar year 2023 Water Quality Monitoring Program. The top portion contains the results from testing required by the CT DPH and/or the EPA; the lower comprises findings acquired from additional monitoring by the Water Division.

Analytical results are for samples collected from our surface water treatment plant, groundwater wells, and distribution system, as applicable. The maximum detected value and range of values are displayed unless otherwise indicated.

CONTAMINANTS (Required Monitoring)	MAXIMUM DETECTED VALUE	RANGE DETECTED VALUES	MCLG	MCL	VIOLATION	MAJOR SOURCES
TOTAL COLIFORM BACTERIA	2%	0 - 2%	0	> 5%	No	Naturally present in the environment.
CHLORINE	2.62 ppm	0.59 - 2.62 ppm	4 ppm MRDLG	4 ppm MRDL	No	Water additive used to control microbes.
TURBIDITY	0.43 NTU ¹	0.12 - 0.43	NA	TT	No	Soil runoff - turbidity is a measure of water clarity indicating filter performance. TT = 95% of samples ≤ 0.3 NTU.
FLUORIDE	0.84 ppm	0.00 - 0.84 ppm	4 ppm	4 ppm	No	Water additive which promotes strong teeth.
COLOR	0 CU	0 CU	NA	15 CU	No	Organic materials, erosion of natural deposits.
HALOACETIC ACIDS	35.8 ppb LRAA	20.6 - 45.1 ppb	NA	60 ppb LRAA	No	A by-product of drinking water disinfection.
TOTAL TRIHALOMETHANES	64.9 ppb LRAA	29.0 - 94.6 ppb	NA	80 ppb LRAA	No	A by-product of drinking water disinfection.
NITRATE [As Nitrogen]	2.62 ppm	0.15 - 2.62 ppm	10 ppm	10 ppm	No	Runoff from fertilizer use, leaching from septic tanks, sewage, and erosion of natural deposits.
BARIUM	0.073 ppm	NA	2 ppm	2 ppm	No	Erosion of natural deposits.
CHLORIDE	24.1 ppm	NA	NA	250 ppm	No	Erosion of natural deposits.
LEAD	See note 2 below	ND - 1.9 ppb	0	AL = 15 ppb	No	Corrosion of household plumbing systems. Action level: 90% of samples must be below this level.
COPPER	See note 3 below	0.03 - 0.12 ppm	1.3 ppm	AL = 1.3 ppm	No	Corrosion of household plumbing systems. Action level: 90% of samples must be below this level.
SODIUM	28.6 ppm	16.0 - 28.6 ppm	NA	AL = 28 ppm	NA ⁴	Naturally occurring or stormwater runoff.
ORTHOPHOSPHATE	0.51 ppm	0.10 - 0.51 ppm	NA	NA	No	Added to reduce corrosion of pipes and plumbing systems.
SULFATE	21.0 ppm	NA	NE	NE	No	Erosion of natural deposits.

ADDITIONAL MONITORING	MAXIMUM DETECTED VALUE	RANGE DETECTED VALUES	MCLG	MCL	VIOLATION	MAJOR SOURCES
1,4 DIOXANE	ND	ND	NR	NR	No	Synthetic industrial chemical used as a stabilizer and solvent for products such as paint, cosmetics, dyes and toiletries; see www.epa.gov for more information.

DEFINITIONS

AL– Action Level - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

CU – Color units.

LRAA – Locational Running Annual Average – The average of results from a sampling point during the previous four calendar quarters.

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 that is allowed in drinking water.

MRDLG– Maximum Residual Disinfectant Level Goal - The level of a disinfectant in drinking water below which there is no known or expected risk to health

NA – Not applicable.

ND – Non-detected.

NE – Not established.

NR – Not regulated.

NTU – Nephelometric Turbidity Unit - A measure of the suspended material in water.

pCi/l – Picocuries per liter.

ppb – Parts per billion.

ppm – Parts per million.

RAA – Running Annual Average – The average of the current and prior three quarterly averages.

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

Notes:

¹ Turbidity: As of January 1, 2002 turbidity may never exceed 1 NTU, and must not exceed 0.3 NTU in 95% of daily samples in any month.

² Lead: 90% of the samples were ≤ 0.6 ppb and none of them exceeded the AL.

³ Copper: 90% of the sites were ≤ 0.101 ppm and none of them exceeded the AL.

⁴ Although sodium does not have a MCL, the State requires that the water supplier provide notification to customers if levels exceed 28.0 ppm. Notice was previously provided in a quarterly bill insert.

Additional Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 and the Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk from infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater>.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of 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 (800-426-4791).

A majority of the water we provide comes from surface water reservoirs, which contain little or no radon. Test results from our groundwater well supplies ranged from non-detected to 498 picocuries per liter in 2023.

Radon is a radioactive gas that is found in nearly all soils. It typically moves up through the ground to the air above and into homes through foundations. Drinking water from a groundwater source can add radon to the air within a home. According to the EPA, "Compared to radon entering the home through the soil, radon in drinking water will be a small source of risk."

At various times the sodium content in our water has exceeded the Connecticut Public Health Code Standard of 28 milligrams per liter. When this occurs, customers are notified of this condition. The areas affected by the elevated sodium are those served by Well No. 3; 2023 testing indicated a level of 28.6 milligrams per liter. For comparison purposes, whole milk has a sodium content of 530 milligrams per liter. We use this groundwater well on a limited basis. Approximately 1.4% of the supply came from Well No. 3 during 2023.

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 water service lines and home plumbing. The Water Division is responsible for providing high quality drinking water but cannot control the variety of materials used in interior plumbing components. When your water has been sitting for several hours you can minimize the potential for lead exposure by flushing your tap for thirty seconds to two 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 (800-426-4791).

Copper is an essential nutrient, but some people who drink water containing copper in excess of the Action Level (see Definitions) 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. People with Wilson's Disease should consult their doctors regarding copper levels in drinking water. Copper in drinking water comes from corrosion of household plumbing systems, erosion of natural deposits and leaching from wood preservatives.