



# ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2019



*Presented By*  
**Southington Water  
Department**

## Our Mission Continues

We are once again pleased to present our annual water quality report covering all testing performed between January 1 and December 31, 2019. Over the years, we have dedicated ourselves to producing drinking water that meets all state and federal standards. We continually strive to adopt new methods for delivering the best-quality drinking water to you. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.

Please remember that we are always available should you ever have any questions or concerns about your water.



## Community Participation

We encourage public interest and participation in our community decisions affecting water. Regular meetings of the Southington Board of Water Commissioners occur once each month. The public is welcome to attend these meetings. A complete listing of meeting locations, dates, and times can be obtained by visiting our Web site at [southingtonwater.org](http://southingtonwater.org) or calling our office at (860) 628-5593.

## Where Does My Water Come From?

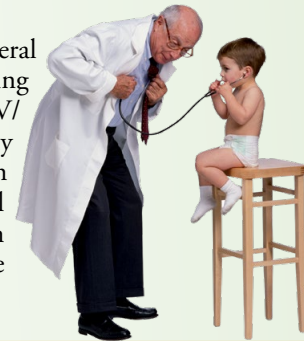
The Southington Water Works Department supplies its customers with a mixture of surface water and groundwater. These water sources include three reservoirs (Southington Reservoir #1, Southington Reservoir #2, and Southington Reservoir #3) on the Southington-Wolcott town line, and six groundwater wells located throughout Southington. Each of these sources is treated specifically based on the needs of the water before becoming available to the public through a vast network of underground pipelines that lie below the town.

## Important Health Information

Sources of lead in drinking water include corrosion of household plumbing system and erosion of natural deposits. Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Sources of copper in drinking water include corrosion of household plumbing systems, erosion of natural deposits, and leaching from wood preservatives. 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. People with Wilson's Disease should consult their personal doctors.

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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



## Source Water Protection

The Southington Water Department owns and controls over 90% of its watershed land and follows best management practices for source water protection. This work includes annual watershed inspection and an active forestry management program. The Southington Water Department has also implemented frequent patrols of watershed land and aquifer protection areas to reduce trespassing.

## Source Water Assessment

The State of Connecticut Department of Public Health has performed an assessment of our drinking water sources. The assessment indicated that our source waters had a susceptibility rating from Low to High. This rating does not imply that the water is contaminated; rather it represents the potential for contamination. The completed assessment report is available on the Drinking Water Division Web site at <https://www.dir.ct.gov/dph/Water/SWAP/Community/CT1310011.pdf>

### Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water 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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come 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 may also come from gas stations, urban stormwater runoff, and septic systems;

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

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

### Water Conservation Tips

You can play a role in conserving water and save yourself money in the process 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. Here are a few tips:

- 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 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 an invisible toilet leak. 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.

We remain vigilant in delivering the best-quality drinking water

## QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call William M. Casarella, Superintendent, at (860) 628-5593.



## Test Results

Our water is monitored for many different kinds of substances on a very strict sampling schedule. Also, the water we deliver must meet specific health standards. Here, we show only those substances that were detected in our water. (A complete list of all our analytical results is available upon request.) Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels.

The state recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

During the summer of 2019, we failed to collect a second round of samples to test for the presence of synthetic organic chemicals (SOCs) in the public drinking water system. We do not believe that missing this monitoring requirement had any impact on public health and safety. We have already taken the steps to ensure that adequate monitoring and reporting will be performed in the future so that this oversight will not be repeated.

We participated in the 4th stage of the U.S. EPA's Unregulated Contaminant Monitoring Rule (UCMR4) program by performing additional tests on our drinking water. UCMR4 sampling benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality. Unregulated contaminant monitoring data are available to the public, so please feel free to contact us if you are interested in obtaining that information. If you would like more information on the U.S. EPA's Unregulated Contaminant Monitoring Rule, please call the Safe Drinking Water Hotline at (800) 426-4791.

### REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2019	15	0	1.95	ND–1.95	No	Erosion of natural deposits
Barium (ppm)	2018	2	2	0.398	0.0073–0.398	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters <sup>1</sup> (pCi/L)	2018	50	0	0.674	0.358–0.674	No	Decay of natural and man-made deposits
Chlorine (ppm)	2019	[4]	[4]	1.07	0.21–1.07	No	Water additive used to control microbes
Combined Radium (pCi/L)	2018	5	0	0.794	0.114–0.794	No	Erosion of natural deposits
Fluoride (ppm)	2019	4	4	0.95	0.34–0.95	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2019	60	NA	37.00	ND–37.00	No	By-product of drinking water disinfection
Nitrate (ppm)	2019	10	10	3.62	0.0554–3.62	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2019	80	NA	79.5	2.4–79.5	No	By-product of drinking water disinfection
Total Organic Carbon <sup>2</sup> (ppm)	2019	TT	NA	3.9	1.6–3.9	No	Naturally present in the environment
Turbidity <sup>3</sup> (NTU)	2019	TT	NA	0.51	0.02–0.51	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2019	TT = 95% of samples meet the limit	NA	100	NA	No	Soil runoff
Uranium (ppb)	2018	30	0	1.02	ND–1.02	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2017	1.3	1.3	0.393	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2017	15	0	3.4	1/30	No	Lead services lines; Corrosion of household plumbing systems including fittings and fixtures; Erosion of natural deposits

## OTHER REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Strontium 90</b> (pCi/L)	2018	NA	NA	-0.013	-0.5260–0.013	No	Nuclear fission

## SECONDARY SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
<b>Chloride</b> (ppm)	2018	250	NA	195	17.8–195	No	Runoff/leaching from natural deposits
<b>Sulfate</b> (ppm)	2018	250	NA	33.7	ND–33.7	No	Runoff/leaching from natural deposits; Industrial wastes

## UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Bromodichloromethane</b> (ppb)	2019	3.46	ND–3.46	By-product of drinking water disinfection
<b>Chloroform</b> (ppb)	2019	21.2	ND–21.2	By-product of drinking water disinfection
<b>Dibromochloromethane</b> (ppb)	2019	1.00	ND–1.00	By-product of drinking water disinfection
<b>Metolachlor</b> (ppm)	2019	0.0003	ND–0.0003	NA
<b>Nickel</b> (ppb)	2018	0.0012	ND–0.0012	Natural element of the Earth's crust; Found in small amounts in food, water, soil, and air
<b>Sodium</b> (ppm)	2018	61.6	11.7–61.6	Naturally occurring; Road salt

## UNREGULATED CONTAMINANT MONITORING RULE - PART 4 (UCMR4)

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
<b>Bromochloroacetic Acid</b> (ppb)	2019	1.85	ND–1.85	By-product of drinking water disinfection
<b>Bromodichloroacetic Acid</b> (ppb)	2019	0.624	ND–0624	By-product of drinking water disinfection
<b>Chlorodibromoacetic Acid</b> (ppb)	2019	0.858	0.393–0.858	By-product of drinking water disinfection
<b>Dibromoacetic Acid</b> (ppb)	2019	2.13	0.433–2.13	By-product of drinking water disinfection
<b>Dichloroacetic Acid</b> (ppb)	2019	1.25	ND–1.25	By-product of drinking water disinfection
<b>HAA5</b> (ppb)	2019	9.62	1.60–9.62	By-product of drinking water disinfection
<b>HAA6Br</b> (ppb)	2019	5.75	2.33–5.75	By-product of drinking water disinfection
<b>HAA9</b> (ppb)	2019	12.9	2.65–12.9	By-product of drinking water disinfection
<b>Manganese</b> (ppb)	2019	445	ND–445	Erosion of natural deposits
<b>Monobromoacetic Acid</b> (ppb)	2019	5.87	ND–5.87	By-product of drinking water disinfection
<b>Monochloroacetic Acid</b> (ppb)	2019	8.93	ND–8.93	By-product of drinking water disinfection

<sup>1</sup>The MCL for beta particles is 4 mrem/year. The U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.

<sup>2</sup>The value reported under Amount Detected for TOC is the lowest ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

<sup>3</sup>Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.

## Definitions

**90th %ile:** The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

**AL (Action Level):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

**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 contaminants.

**NA:** Not applicable

**ND (Not detected):** Indicates that the substance was not found by laboratory analysis.

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**pCi/L (picocuries per liter):** A measure of radioactivity.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**SMCL (Secondary Maximum Contaminant Level):** These standards are developed to protect aesthetic qualities of drinking water and are not health based.

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

## Lead in Home Plumbing

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. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your 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 at (800) 426-4791 or at [www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead).

