



# 2021 ANNUAL WATER QUALITY REPORT

Hazardville Water Company - Hazardville System (Enfield, Somersville, East Windsor)

**Reporting Period: January 1, 2021 - December 31, 2021**

The Hazardville Water Company is pleased to provide you with this year's Annual Water Quality Report. This report is designed to inform you about the quality of your drinking water and the services we deliver to you daily. Our goal is to provide you with a safe and dependable supply of drinking water. We are hopeful this report will help you better understand the efforts we expend to optimize the water treatment processes and to protect our water resources. We are committed to ensuring that you have the highest quality of drinking water.

In order to provide customers with the highest quality of drinking water possible, all HWC's water treatment facility personnel are certified at or above the required level of classification set by the State of Connecticut for the HWC system. To become certified, our employees must obtain experience in the field of water treatment and pass a written examination administered by the State Department of Public Health.

Customers of the Hazardville Water Company receive their drinking water from eleven underground wells that are located throughout the Enfield area. Because groundwater is naturally filtered through soil, it does not usually require additional filtration. However, water from the Avery wells is filtered to remove manganese, a mineral that can cause staining of plumbing fixtures, laundry and dishwashers. The HWC also adds chlorine to its water as a precautionary measure to protect against waterborne diseases. We are pleased to report that all of our drinking water is considered safe for consumption by State and Federal drinking water standards.

In order to prevent contamination from occurring in our source water supplies, the HWC utilizes an active source water protection plan that is reviewed and updated annually to account for system and regulatory changes. This plan includes regular inspections of critical areas which influence or have the potential to influence the quality of the Company's source water, continuous water quality monitoring of the source and distribution water, and regular sanitary surveys of all well fields.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants -- no drinking water is pure. As water travels through the ground, it can dissolve naturally occurring minerals and naturally occurring radioactive material and maintain these substances in solution. Animal and human activity may also influence the quality of drinking water. Leaking underground storage tanks, failing septic systems, accidental chemical spills, and agricultural runoff are examples of contamination by human activity.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations that limit the amount of harmful contaminants in drinking water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. It is important to remember that the presence of contaminants does not necessarily indicate that water poses a health risk, provided that the contaminants found are at extremely low levels -- levels lower than the limits established by the State and Federal agencies. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

The State of Connecticut Department of Public Health (DPH) in cooperation with the Department of Environmental Protection (DEEP) completed assessments of the Hazardville Water Company's source waters in 2003. These assessments are intended to provide HWC's consumers with information about where their public drinking water comes from, sources of potential contamination that could impact it, and what can be done to help protect it. The source water assessment results for the HWC wells indicate that there is an overall moderate to high risk of contamination from identified potential sources of contamination. It should be noted that this rating does not necessarily imply poor water quality or violations of the Connecticut Public Health Code. The entire assessment report can be viewed on the DPH's website at <http://www.dph.state.ct.us./brs/water/swap.htm>.

The table on the next page lists the results of over 110 different substances that the Hazardville Water Company tests for regularly. Substances not listed in the table were not found in the treated water supply.

Please note that the results indicated represent only the highest levels found during the sampling period unless otherwise noted. Because the HWC uses many wells, some variability exists throughout the system due to blending; therefore, most homes will experience lesser amounts of contaminants in their drinking water than those reported. Private state certified drinking water laboratories are utilized to ensure that the water supplied to you meets all state and federal drinking water standards.

During the sampling period covered in this report, the HWC is pleased to announce that your drinking water meets all federal and state standards and requirements. Although, from time to time, some contaminants have been detected, the EPA has determined that your water IS SAFE at these levels.

# ANNUAL 2021 DRINKING WATER QUALITY REPORT: TEST RESULTS

## Hazardville Water Company 2021

CONTAMINANTS	AMOUNT DETECTED	RANGE		YEAR SAMPLED	MCL	MCLG	VIOLATION	POSSIBLE SOURCES OF CONTAMINATION
		LOW	HIGH					
<b>DISINFECTANT RESIDUAL</b>								
Chlorine (ppm)	0.8	ND	0.8	2021	4 <sup>3</sup>	4 <sup>4</sup>	No	Water additive to control microbes
<b>INORGANIC CONTAMINANTS</b>								
Arsenic (ppb) <sup>5</sup>	4.3	ND	4.3	2020	10	0	No	Erosion of natural deposits, runoff from orchards
Barium (ppm) <sup>5</sup>	0.3	0.1	0.3	2020	2	2	No	Erosion of natural deposits
Chloride (ppm) <sup>5</sup>	81	18	81	2020	250	N/A	No	Natural deposits, road salting
Chromium (ppb) <sup>5</sup>	1	ND	1	2020	100	100	No	Erosion of natural deposits
Copper (ppm)	0.45*	0.04	0.53	2021	AL = 1.3	1.3	No	Corrosion of household plumbing, erosion of natural deposits, leaching from wood preservatives
Lead (ppb) <sup>1</sup>	1.8*	ND	51.9	2021	AL = 15	0	No	Corrosion of household plumbing, erosion of natural deposits
Nickel (ppb) <sup>5</sup>	1	ND	1	2020	100	100	No	Erosion of natural deposits
Nitrate (ppm)	5.7	0.04	5.7	2021	10	10	No	Fertilizer run-off, leaking septic tanks, natural deposits
Sodium (ppm)	39.9	8.9	39.9	2021	28 <sup>2</sup>	N/A	No	Natural deposits, road salting
Sulfate (ppm) <sup>5</sup>	89	14	89	2020	N/A	N/A	No	Natural deposits
<b>DISINFECTION BYPRODUCTS</b>								
TTHM'S (ppb)	22.8	4.8	22.8	2021	80	0	No	Byproduct of drinking water chlorination
HAA5 (ppb)	5.9	ND	5.9	2021	60	0	No	Byproduct of drinking water chlorination
<b>RADIOLOGICALS</b>								
Gross Alpha (pCi/l) <sup>5</sup>	4.8	ND	4.8	2020	15	0	No	Erosion of natural deposits
Radium 226/228 (pCi/l) <sup>5</sup>	2.2	1.3	2.2	2020	5	0	No	Erosion of natural deposits
<b>OTHER</b>								
Turbidity (NTU)	1.3	ND	1.3	2021	TT	0	No	Soil run-off

\* Calculated result for compliance purposes

- Footnotes:
1. Number exceeding Action Level: 1 out of 35 sites sampled
  2. Notification Level, MCL does not exist
  3. MRDL
  4. MRDLG
  5. Tested in 2020; Sampling required every 3 years

TERM / ABBREVIATION	DEFINITION
Al = Action Level	The concentration of a contaminant that if exceeded, triggers a treatment or other requirement, which a water system must follow
MCL = Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. Exceeding the MCL triggers mandatory actions such as customer notification and remediation
MCLG = Maximum Contaminant Level Goal	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants
Notification Level	The concentration of a contaminant which, if exceeded, the water utility must notify its customers
pCi/l = Picocuries per liter	A measure of radioactivity in water
TT = Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water
HAA5 = Haloacetic Acids	TTHMs = Total Trihalomethanes
	N/A = Not applicable
	ND = None detected
ppb = Parts per billion	ppm = Parts per million

**Sodium Notification:** The Somersville section of Somers and the Green Manorville section of Enfield experienced levels of sodium in the drinking water that exceeded the state notification level of 28 ppm during the 2021 sampling period. If you live in these areas and have been placed on a sodium-restricted diet, please inform your physician that your drinking water contains 39.9 milligrams per liter of sodium.

**Nitrate:** The highest nitrate result found during the sampling period of 5.7 ppm is lower than the MCL of 10 ppm and is considered safe to drink by state and federal health agencies. However, nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels (in excess of the MCL 10 ppm) 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 and nitrate levels exceed 10 ppm, you should ask advice from your health care provider. As a precaution, the HWC will immediately notify physicians and health care providers in this area along with its customers if the nitrate limit is ever exceeded.

**Radon:** In October 1996, the Hazardville Water Company conducted a system wide study of radon in its treated distribution water and found levels to range from 247 - 708 picocuries per liter. Currently there are no state or federal limits for radon in drinking water; however, the EPA has proposed a limit of 4000 picocuries per liter. The scientific community and the U. S. Environmental Protection Agency continue to conduct extensive research in order to learn more about radon in drinking water with the ultimate goal of protecting public health.

**Unregulated Contaminant Monitoring Rules**

The EPA continually evaluates its drinking water standards to protect public health. As required by the 1996 Safe Drinking Water Act amendments, once every five years the EPA issues a new list of no more than 30 unregulated contaminants to be

**Turbidity:** is a measurement of the cloudiness of water and is monitored because it is a good indicator of water quality. High turbidity may hinder the effectiveness of chlorination. The turbidity levels found in the HWC’s distribution system are relatively low and currently pose no threat to the chlorination process.

**Hardness:** is caused by calcium and magnesium which becomes dissolved in water and is commonly found in groundwater. When hardness is present, these minerals may come out of solution and cause white deposits on plumbing fixtures and dishes. Although harmless, hardness can be aesthetically unpleasing. The hardness found in the HWC’s distribution system ranges from 5.5 grains per gallon (94 parts per million) to 17 grains per gallon (301 ppm); water at these levels is considered moderately hard. In order to control the effects of hardness, the HWC adds a food grade phosphate based sequesterant approved by State Health Officials to its treated water. This process aids in keeping the hardness in solution with the water.

**Arsenic:** While your drinking water meets 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 cost 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.

monitored by public water systems. This monitoring provides a basis for potential future regulatory actions to protect public health. The following table shows the latest unregulated contaminants that were detected.

<b>UCMR4 RESULTS - 2019</b>			
<b>(Parameters have no standards but are being evaluated for potential future regulations)</b>			
CONTAMINANTS	RANGE OF DETECTIONS		POSSIBLE SOURCES OF CONTAMINATION
	LOW	HIGH	
Bromochloroacetic Acid (ppb)	0.4	1.3	By-product of drinking water disinfection
Bromodichloroacetic Acid (ppb)	ND	0.7	By-product of drinking water disinfection
Chlorodibromoacetic Acid (ppb)	ND	0.6	By-product of drinking water disinfection
Bromide (ppb)	30	252	Erosion of natural deposits
Manganese (ppb)	ND	0.0004	Erosion of natural deposits

## Could There Be Lead or Copper in My Drinking Water?

Lead and copper are unusual among drinking water contaminants in that they seldom occur naturally in water supplies. Lead and copper may enter water supplies by the erosion of natural deposits or by leaching from some wood preservatives; however, the Hazardville Water Company is pleased to announce that there is no lead or copper found in any of the company's 11 wells. The major source of lead and copper entering the water is by corrosion of household plumbing systems that contain lead or copper. These systems include lead and copper service lines (pipes connecting your house to the water main), lead and copper plumbing, and lead based solder used to join copper pipe.

When water stands motionless in plumbing systems that contain lead or copper for several hours, the lead or copper may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

### What is Being Done to Reduce Lead and Copper Corrosion?

The Hazardville Water Company tests for lead and copper every three years in homes that are at a higher risk for containing lead or copper (homes that contain copper pipes joined with lead solder). The last tests took place in 2021. Thirty-five sites were tested in the Enfield/Somersville section and 5 sites were tested in the Rye Hill, Somers section of HWC's distribution system. No sites in either section exceeded the EPA action level limit of 1.3 parts per million for copper. One site in the Rye Hill, Somers section exceeded the EPA action level limit of 15 parts per billion for lead. One site out of the 35 sites in the Enfield/Somersville section exceeded the action level limit for lead.

In order to reduce lead and copper corrosion in the water, HWC adds a food grade compound to the treated water that provides a barrier between the water and the pipes with which it comes in contact.

### Lead, Copper and Your Health:

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical and mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink water that contains lead in excess of the action level over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water that contains 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 doctor.

### Simple Steps to Reduce Exposure to Lead and Copper in Tap Water:

1. Flush your tap - The longer water remains in contact with plumbing materials containing lead and copper, the greater the chance lead or copper will dissolve into the water. Anytime water has gone unused for more than six hours, run each faucet used for drinking or cooking for about a minute or until water becomes cold. Fill a pitcher after flushing the system and refrigerate it for later use. The flushed water may be used for watering houseplants.
2. Use Only Cold Water for Cooking or Drinking - Since hot water lines leach more lead and copper than cold water lines, use cold water for drinking, cooking, making baby formula and mixing juices. If you need hot water for these purposes, heat water on the stove.
3. Remove Loose Lead Solder - Every few months remove the faucet aerator from each faucet in your home and flush the pipes for about 3 - 5 minutes. This will remove any loose lead solder from your plumbing.
4. Be Mindful of Other Lead Sources In or Near Your Home - There are many exposures to lead in the environment, particularly lead-based paint. Children, who are at the highest risk for lead, often come in contact with it in other ways like dirt, dust and paint chips. It is important to wash children's hands and toys often.

### **Should I Get A Home Water Filtration System?**

Some water filtration systems do not remove dissolved lead and copper which is the major source of concern. Before purchasing a filter, you should verify the manufacturer's claims. A good resource is the National Sanitation Foundation ([www.nsf.org](http://www.nsf.org)), an independent testing agency that evaluates and certifies the performance of filtering devices. Simply running the tap, as described above, is a cheaper and effective alternative.

### **For More Information:**

## Tips to Protect the Environment

Preventing drinking water contamination at the source makes good public health and environmental sense. You can be aware of the challenges of keeping the drinking water safe and take an active role in protecting the drinking water. The following are ways that you can get involved in drinking water protection activities and help prevent the contamination of ground water sources:

1. Do not dispose of toxic or objectionable liquids or other wastes on the ground, down storm drains or in sewers.
2. Do not dispose of prescription or over the counter medications on the ground, down storm drains or in sewers.
3. Dispose of leftover gasoline and used oil at a recycling or collection center.
4. Dispose of unwanted hazardous products (solvents, cleaning agents, etc.) at hazardous waste collection centers.
5. Use fertilizers, pesticides and herbicides sparingly. Never exceed manufacturers' recommended application rates. Take unwanted quantities to a waste collection center.
6. Regularly inspect septic systems and underground fuel storage tanks.
7. Do not use hazardous products if safer alternatives are available.
8. If hazardous products are to be used, only purchase enough to do the job at hand.
9. Attend public hearings on drinking water and related issues.
10. Support your local water purveyor on issues that protect our environment and our drinking water quality.

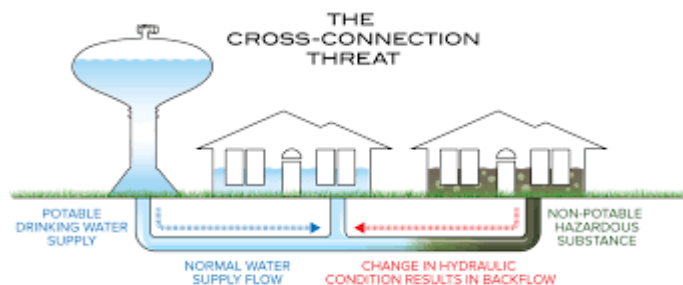
## Water Conservation

Water is a limited resource so it is vital that we all work together to maintain it and use it wisely. Here are a few tips you can follow to help conserve:

- Check for leaky toilets (put a drop of food coloring in the tank, after 20 minutes if the water in the bowl turns color, you have a leak). A leaking faucet or toilet can dribble away thousands of gallons of water a year.
- Consider replacing your 5-gallon per flush toilet with an efficient 1.6 gallon per flush unit. This will permanently cut your water consumption by 25%.
- Run only full loads in dishwashers and washing machines. Rinse all hand washed dishes at once.
- Turn off the faucet while brushing teeth or shaving.
- Store a jug of ice water in the refrigerator for a cold drink.
- Water lawn and plants in the early morning or evening hours to avoid excess evaporation. Don't water on a windy, rainy or very hot day.
- Water shrubs and gardens using a slow trickle around the roots. A slow soaking encourages deep root growth, reduces leaf burn or mildew and prevents water loss. Select low-water demanding plants that provide an attractive landscape without high water use.
- Apply mulch around flowers, shrubs, vegetables and trees to reduce evaporation, promote plant growth and control weeds. Shrubs and ground covers require less maintenance, less water and provide year-round greenery.
- Be sure that your hose has a shut-off nozzle. Hoses without a nozzle can spout 10 gallons of water or more per minute.
- When washing your car, wet it quickly, turn on the spray, wash it with soapy water from the bucket, rinse quickly.
- Be sure sprinklers water only your lawn, not the pavement.
- Never use the hose to clean debris off your driveway or sidewalk. Use a broom.

## Cross Connection Information

A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, if you're going to spray fertilizer on your lawn and hook up your garden hose to a sprayer that contains the fertilizer and if the water pressure drops (i.e., fire hydrant use) when the hose is connected to the fertilizer sprayer, the fertilizer may be drawn back into the drinking water pipes of your home through the hose. The use of a backflow prevention device can prevent this problem. The Hazardville Water Company recommends the installation of backflow prevention devices, such as a low cost hose bib vacuum breaker, for all inside and outside hose connections. You can purchase these at a hardware or plumbing supply store. This is a great way for you to help protect the water in your home as well as the drinking water system. In addition, all underground lawn irrigation systems are required to have a pressure vacuum breaker or reduced pressure zone device installed to prevent against back siphonage. For additional information on cross connections and the status of our cross-connection program, please contact The Hazardville Water Company @ (860) 749-0779.



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 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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

In our continuing efforts to maintain a safe and dependable water supply, it may be necessary to make improvements to the Company's water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

If you have any questions regarding this report or if you would like more information regarding HWC's water quality, please call Dave Fillion, Chief Treatment Plant Operator, at 860-749-0779. The HWC welcomes comments and suggestions that would further enhance the protection and quality of the water. These comments can be made either by calling the above telephone number or in writing to the Hazardville Water Company, 481 Taylor Road, Enfield, 06082. Please also visit our website at <http://www.hazardvillewater.com>



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