JEWETT CITY WATER COMPANY

2023 WATER QUALITY REPORT

REPORTING PERIOD: JANUARY 1, 2023 – DECEMBER 31, 2023

(Connecticut Public Water System ID# CT0580011)

The Jewett City 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 service that we deliver to you daily. Our goal is to provide you with a safe and dependable supply of drinking water.

In order to prevent contamination from occurring in our source water supplies, JCWC conducts sanitary and watershed inspections during the year. JCWC is pleased to report that your drinking water is safe to drink and meets federal and state requirements.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. As water travels over land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency Safe Drinking Water Hotline (800) 426-4791 or by visiting their website.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of harmful contaminants in drinking water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised people, such as those with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune disorders, some elderly, and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline (800) 426-4791.

The Jewett City's water system is served by two (2) water sources: The Stone Hill Reservoir and the Hopeville Wellfield which are located in Griswold. Either source has the capacity to supply the Jewett City's system. Water from the reservoir is filtered and treated at the Stone Hill Water Treatment Plant. Water from the Hopeville Wellfield is treated at the wellfield.

The State of Connecticut Department of Public Health (DPH), in cooperation with the Department of Environmental Protection (DEEP), recently completed an assessment of sources of public drinking water maintained and operated by the Jewett City Water Company – Hopeville Wellfield and Stone Hill Reservoir.

The assessments are intended to provide the Jewett City Water Company customers with information about where their public drinking water comes from, sources of potential contamination, and what can be done to help protect the drinking water. These assessments also assist the JCWC, regional planners, local governments, public health officials and state agencies in evaluating the degree to which the water sources may be at risk from potential contamination. The overall susceptibility rating for both the Hopeville Wellfield and the Stone Hill Reservoir is low. This rating indicates low susceptibility to potential sources of contamination that may be found in the source water area and does not imply poor water quality.

The updated assessment report can be found on the Department of Public Health's website: "*portal.ct.gov/DPH/Drinking-Water/DWS/Source-Water-Assessment-Program-SWAP-Reports*".

ANNUAL 2023 DRINKING WATER QUALITY REPORT: TEST RESULTS

JCWC routinely monitors for contaminants in your drinking water according to Federal and State laws. This report shows the results of the monitoring period of January 1 to December 31, 2023. Variability in water quality does exist throughout the system during the year. Therefore, most customers will experience lesser amounts of contaminants in their drinking water than those reported. In addition to the contaminants found in the following table, the JCWC tests for over 100 substances regularly as required by state and federal regulations. Those not listed in the table were not found in the treated water supply.

Jewett City Water - Main System

CONTAMINANTS	AMOUNT DETECTED	RANGE LOW	RANGE HIGH	YEAR SAMPLED	MCL	MCLG	VIOLATION	POSSIBLE SOURCES OF CONTAMINATION
DISINFECTANT RESIDUAL								
Chlorine (ppm)	2.6	0.3	2.6	2023	4 [4]	4 [5]	No	Water additive to control microbes
INORGANIC CONTAMINANTS								
Barium (ppm) [3]	0.01	ND	0.01	2022	2	2	No	Erosion of natural deposits
Chloride (ppm) [3]	38.6	9.6	38.6	2022	250	N/A	No	Natural deposits, road salting
Copper (ppm) [1]	0.1*	0.01	0.2	2023	AL = 1.3	1.3	No	Corrosion of home plumbing, erosion of natural deposits, leaching from wood preservatives
Lead (ppb) [1]	ND*	ND	1.5	2023	AL = 15	0	No	Corrosion of home plumbing, erosion of natural deposits
Nitrate (ppm)	0.3	ND	0.3	2023	10	10	No	Fetilizer, leaking septic tanks, natural deposits
Sodium (ppm) [3]	23	9.2	23	2022	28 [2]	N/A	No	Natural deposits, road salting
Sulfate (ppm) [3]	8.5	ND	8.5	2022	N/A	N/A	No	Natural deposits
DISINFECTION BYPRODUCTS								
TTHM'S (ppb)	60	19	60	2023	80	0	No	Byproduct of drinking water chlorination
HAA5 (ppb)	51	14	51	2023	60	0	No	Byproduct of drinking water chlorination
OTHER								
Turbidity (NTU)	0.8	ND	0.8	2023	TT	0	No	Soil run-off
2,4-D (ppb) [3]	0.3	-	0.3	2022	70	70	No	Runoff from herbicides
MICROBIOLOGICAL								
Coliform Bacteria	1 Sample	0	1	2023	1	0	No	Naturally present in the environment
E. coli Bacteria	0	0	0	2023	0	0	No	Human or animal fecal waste

*** Calculated result for compliance purposes**

Footnotes:

1. **Number exceeding Action Level: 0 out of 22 sites sampled; next test scheduled in 2026**
2. **Notification Level, MCL does not exist**
3. **Sampling required every three years. Next test scheduled for 2025**
4. **MRDL**
5. **MRDLG**

TABLE DEFINITIONS

Parts per Million (ppm): One part per million corresponds to a single penny in $10,000

Parts per Billion (ppb): One part per billion corresponds to a single penny in $10,000,000

Nephelometric Turdity Unit (NTU): A measure of the clarity in water. Turbidity in excess of 5 NTU is just noticeable

Action Level (AL): The concentration of a contaminant, which if exceeded, triggers a treatment requirement that the water system must follow

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water

Maximum Contaminant Level Goal (MCLG): Level of contaminant in drinking water, below which there is no known risk to health

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water

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

Treatment Technique (TT): A required process intended to reduce the level of contaminants in drinking water

N/A: Not Applicable, does not exist

ND: Not Detected

TTHM's: Total Trihalomethanes

HAA5: Total Haloacetic Acids

PUBLIC NOTIFICATION – REPORTING VIOLATION: Important Information About Your Drinking Water

The Jewett City Water Company incurred one monitoring/reporting requirement violation from the Connecticut Department of Public Health (DPH) during 2023. As a supplier of public drinking water, we are required to monitor the water quality of our water supply to ensure that it meets the current drinking water standards. Failure to conduct this monitoring and/or report results of such monitoring to the State Department of Public Health Drinking Water Section constitutes a violation. Although this incident was not an emergency, as our customers, you have the right to know what happened and what we did to correct this situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. We did not complete the monitoring or did not report the results for the requirement listed below:

Chlorine (WSF ID: 00600; Monitoring Period: July 1, 2023 – July 31, 2023)

This violation affected the entire Jewett City Water Company's distribution system.

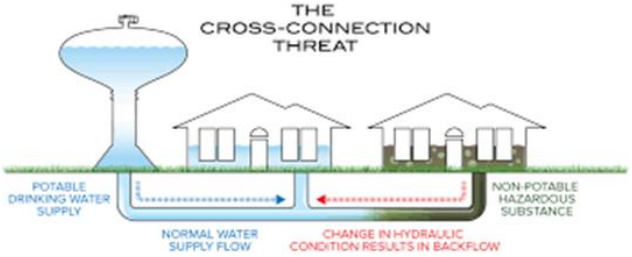
In the State of Connecticut, a certified laboratory is responsible for submitting all drinking water sample results electronically to the State Department of Public Health Drinking Water Section. The Jewett City Water Company uses an outside private laboratory, which is certified by the State Department of Public Health, for its water testing and reporting requirements. The Jewett City Water Company failed to record the chlorine residual from 1 out of 9 coliform samples collected in July, 2023 on a laboratory chain of custody. While the coliform sample passed, the failure to record the chlorine residual resulted in the sample as being invalid. In order to prevent this error from happening again in the future, all laboratory chain of custodies will be reviewed by the Company's Chief Treatment Plant Operator before they are submitted to the laboratory. This situation was resolved on January 10, 2024. If you have any questions regarding this situation, please feel free to contact John Violette at 800-430-8073 or by mail at Jewett City Water Company, PO Box: 1088, Enfield, CT 06083. In addition, the State of Connecticut Department of Public Health Drinking Water Section may also be contacted at 860-509-7333.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

CROSS CONNECTION INFORMATION

A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can even come from your home. For instance, if you're going to spray fertilizer on your lawn and you hook up a garden hose to a sprayer that contains fertilizer; and if the water pressure drops (i.e. fire hydrant use) when the hose is connected to the fertilizer sprayer; the fertilizer can 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 Jewett City Water Company recommends the installation of backflow prevention devices, such as low-cost hose bibb vacuum breakers, for all inside and outside hose connections. In addition, all underground lawn irrigation systems are required to have either a Pressure Vacuum Breaker (PVB) or Reduced Pressure Zone Device (RPD) installed on the system. Please note that all PVB's and RPD's are required to be tested annually by a state certified tester. The Jewett City Water Company does perform these tests for our customers.



UNREGULATED CONTAMINANT MONITORING RULE (UCMR5) – Per and Polyfluoroalkyl Substances (PFAS)

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 monitored by public water systems. This monitoring provides a basis for potential future regulatory actions to protect public health. In 2023, the Jewett City Water Company completed the latest round of UCMR5 sampling. The following table shows the unregulated contaminants that were detected during this sampling:

UCMR5 RESULTS - 2023

	JEWETT CITY WATER COMPANY							
	RANGE OF DETECTIONS		HAZARD INDEX (unitless)		CURRENT CT ACTION LEVELS	PROPOSED EPA MCL's	PROPOSED EPA HAZARD INDEX (HI)	POSSIBLE SOURCES OF CONTAMINATION
CONTAMINANT	LOW (ppt)	HIGH (ppt)	LOW	HIGH	(ppt)	(ppt)	(unitless)	
Perfluorooctane Sulfonic Acid (PFOS)	ND	ND	NA	NA	10	4.0	NA	
Perfluorooctanoic Acid (PFOA)	ND	ND	NA	NA	16	4.0	NA	
Perfluorohexane Sulfonic Acid (PFHxS)	ND	ND	ND	ND	49	None	1.0	
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ND	ND	760	None	1.0	Non-stick coatings
Perfluorohexanoic Acid (PFHxA)	ND	ND	NA	NA	240	None	NA	Stain-resistant coatings
Perfluorobutanoic Acid (PFBA)	ND	12	NA	NA	1800	None	NA	Food packaging
Hexafluoroproylene Oxide Dimer Acid (GenX)	ND	ND	ND	ND	19	None	1.0	Chemically inert coatings
Perfluorononanoic Acid (PFNA)	ND	ND	ND	ND	12	None	1.0	Fire-fighting foam
6:2 Chloropolyfluoroether sulfonic Acid (6:2 Cl-PFESA, 9Cl-PF3ONS, F-53B Major)	ND	ND	NA	NA	2	None	NA	Industrial processes
8:2 Chloropolyfluoroether Sulfonic Acid (8:2 Cl-PFESA,11Cl-PF3OUdS,F-53B Minor)	ND	ND	NA	NA	5	None	NA	

Table Notes: ND = Not Detectected; NA = Not Applicable; ppt = Parts per Trillion
Hazard Index (HI) = The Hazard Index is a tool that EPA uses to understand health risks from chemical mixtures. It considers the different toxicities of PFNA, PFHxS, PFBS, and GENX chemicals. PFNA and GENX were not found in any of the Hazardville Water Company's water sources.

There has been a lot of media attention lately about PFAS. PFAS are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s because of their useful properties. There are thousands of different PFAS, some of which have been more widely used and studied than others. Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS), for example, are two of the most widely used and studied chemicals in the PFAS group. PFOA and PFOS have been replaced in the United States with other PFAS in recent years. One common characteristic of concern of PFAS is that many break down very slowly and can build up in people, animals, and the environment over time and are therefore called "forever chemicals".

PFAS Can Be Found in Many Places

PFAS can be present in our water, soil, air, and food as well as in materials found in our homes or workplaces, including:

- **Soil and water at or near waste sites** - at landfills, disposal sites, and hazardous waste sites such as those that fall under the federal Superfund and Resource Conservation and Recovery Act programs.
- **Fire extinguishing foam** - in aqueous film-forming foams (or AFFFs) used to extinguish flammable liquid-based fires. Such foams are used in training and emergency response events at airports, shipyards, military bases, firefighting training facilities, chemical plants, and refineries.
- **Manufacturing or chemical production facilities that produce or use PFAS** – for example at chrome plating, electronics, and certain textile and paper manufacturers.
- **Food** – for example in fish caught from water contaminated by PFAS and dairy products from livestock exposed to PFAS.
- **Food packaging** – for example in grease-resistant paper, fast food containers/wrappers, microwave popcorn bags, pizza boxes, and candy wrappers.

- **Household products and dust** – for example in stain and water-repellent used on carpets, upholstery, clothing, and other fabrics; cleaning products; non-stick cookware; paints, varnishes, and sealants.
- **Personal care products** – for example in certain shampoo, dental floss, and cosmetics.
- **Biosolids** – for example fertilizer from wastewater treatment plants that is used on agricultural lands can affect ground and surface water and animals that graze on the land.
- **Drinking water** – in public drinking water systems and private drinking water wells.

People Can Be Exposed to PFAS in a Variety of Ways

Due to their widespread production and use, as well as their ability to move and persist in the environment, surveys conducted by the Centers for Disease Control and Prevention (CDC) show that most people in the United States have been exposed to some PFAS. Most known exposures are relatively low, but some can be high, particularly when people are exposed to a concentrated source over long periods of time. Some PFAS chemicals can accumulate in the body over time.

Current research has shown that people can be exposed to PFAS by:

- Working in occupations such as firefighting or chemicals manufacturing and processing.
- Drinking water contaminated with PFAS.
- Eating certain foods that may contain PFAS, including fish.
- Swallowing contaminated soil or dust.
- Breathing air containing PFAS.
- Using products made with PFAS or that are packaged in materials containing PFAS.

Current peer-reviewed scientific studies have shown that exposure to certain levels of PFAS may lead to:

- Reproductive effects such as decreased fertility or increased high blood pressure in pregnant women.
- Developmental effects or delays in children, including low birth weight, accelerated puberty, bone variations, or behavioral changes.
- Increased risk of some cancers, including prostate, kidney, and testicular cancers.
- Reduced ability of the body's immune system to fight infections, including reduced vaccine response.
- Interference with the body's natural hormones.
- Increased cholesterol levels and/or risk of obesity.

PFAS in Connecticut

The Connecticut Department of Public Health (DPH) set a Drinking Water Action Level in 2016 for PFAS that was the same as the EPA Health Advisory level of 70 parts per trillion, but DPH also included three additional PFAS (PFNA, PFHxS, PFHpA) to the EPA's group. The sum of this group of five PFAS was to be below the target concentration of 70 parts per trillion. **On June 15, 2022, DPH announced new drinking water action levels for four individual PFAS compounds; another six individual compounds were then added in June, 2023.**

According to DPH: Action Levels, which are non-enforceable, can be used as guidance by health departments and private well owners when evaluating the potability of well water. There are currently no enforceable federal drinking water standards for chemicals in the PFAS family.

All 2023 detected PFAS levels in the Jewett City Water Company's sources of supply were found to be lower than the current U.S.EPA and CT DPH Connecticut Action Levels. The Jewett City Water Company is closely monitoring the U.S. EPA's proposed limits for PFAS in drinking water, investigating available options for removing PFAS from the water, and will be implementing treatment as necessary to remain in compliance with all future U.S. EPA and CT DPH limits.

LEAD AND COPPER

Lead Health Effects: "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 Jewett City Water Company is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Jewett City Water Company at 800-430-8073. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure are available at *http://www.epa.gov/safewater/lead*."

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. No samples collected in the last round of sampling exceeded the action level for lead.

Copper Health Effects: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short 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. No samples collected in the last round of sampling exceeded the action level for copper.

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 6 hours, run each faucet used for drinking or cooking for about one minute or until the water becomes cold. Fill a pitcher after flushing the system and refrigerate it for later use. The flushed water may be used for watering house plants.
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 and Around 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.

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 by taking 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 groundwater 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 waste 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.

WATER CONSERVATION

Water is a limited resource so it is vital that we all work together to maintain and use it wisely. Here are a few suggestions that you can do to help conserve your drinking water.

- 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 or more per minute.

THE JEWETT CITY WATER COMPANY

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