



2024 Water Quality Report

P. 7 AMENDED 10/31/25

MANCHESTER WATER DEPARTMENT

The Manchester Water Department is pleased to provide our customers with this annual report on the drinking water supplied to the residents of Manchester and our customers in portions of Glastonbury, Vernon and South Windsor. The information contained in this brochure is compiled from data collected during 2024 (except where noted) and explains where your water comes from, what tests were performed to ensure the safety of your water and where you can get more information about your water supply. We hope you will find this publication both interesting and helpful. Please share this information with all the other people who drink this water, especially those who may not be our direct customers, such as tenants. Please consider forwarding this publication or posting it publicly to others in our service area that are impacted.

We want to keep you informed about the quality of your drinking water.

Attention: This report contains important information about your drinking water. Please read it carefully.



Spanish:

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Bengali:

লক্ষ্য করুন: এই প্রতিবেদনে আপনার পানি পান করা সম্পর্কে গুরুত্বপূর্ণ তথ্য রয়েছে। দয়া করে কাউকে দিয়ে অনুবাদ করান অথবা এমন কাউকে বলুন যিনি এটা ভালো বুঝতে পারেন।

Hindi:

ध्यान दें: इस रिपोर्ट में आपके पीने के पानी के बारे में महत्वपूर्ण जानकारी है। कृपया किसी व्यक्ति से अनुवाद करवाएं या किसी ऐसे व्यक्ति से बात करें जो इसे अच्छी तरह समझता हो।

Punjabi:

ਧਿਆਨ ਦਿਓ: ਇਸ ਰਿਪੋਰਟ ਵਿੱਚ ਤੁਹਾਡੇ ਪੀਣ ਵਾਲੇ ਪਾਣੀ ਬਾਰੇ ਮਹੱਤਵਪੂਰਨ ਜਾਣਕਾਰੀ ਹੈ। ਕਿਰਪਾ ਕਰਕੇ ਕਿਸੇ ਵਿਅਕਤੀ ਤੋਂ ਅਨੁਵਾਦ ਕਰਵਾਓ ਜਾਂ ਕਿਸੇ ਅਜਿਹੇ ਵਿਅਕਤੀ ਨਾਲ ਗੱਲ ਕਰੋ ਜੋ ਇਸਨੂੰ ਚੰਗੀ ਤਰ੍ਹਾਂ ਸਮਝਦਾ ਹੋਵੇ।

French:

Ce rapport contient des informations importantes à propos de votre eau potable. De mander à quelqu'un de traduire ces informations pour vous ou discuter avec une personne qui comprend ces informations.

If you have questions about this report or your water supply, contact us directly at (860) 647-3217 to reach the Laboratory Director, Brenda Williams. For general questions please call (860) 647-6050. If you wish to participate in decisions that may affect the quality of the water, the Board of Directors meets at Lincoln Center on the first Tuesday of each month. Meetings are currently being conducted in a hybrid fashion. For dates and times, and for information on virtual attendance please contact the Mayor's office at (860) 647-3123 or go to our webpage at manchesterct.gov/boardofdirectors

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www.manchesterct.gov/water-sewer

Sources of Drinking Water

Manchester's water supply includes both surface water from reservoirs and groundwater from wells. There are seven surface water reservoirs and nine active wells. Globe Hollow, Porter, Lydall #1 and #2 and Howard reservoirs are located in Manchester; Risley reservoir is located in Vernon and Buckingham reservoir is located in Glastonbury. The reservoirs supply the majority of water to our customers and are augmented with groundwater from five wells, which are located throughout Manchester on Parker Street, Progress Drive, Charter Oak Street and Fern Street. An additional area of Manchester is served by the Love Lane and New State Road wells. (To see where your water comes from see the map on Page 4).

The water from the reservoirs flows into the Globe Hollow water treatment plant on Spring Street, where the water is processed before it is sent into the water distribution system. The treatment process is comprised of flocculation, sedimentation, and filtration to remove impurities and disinfection to kill microbes that can cause illness. Lime and zinc orthophosphate are added to prevent corrosion of plumbing. The CT Department of Health also requires that fluoride be added to help prevent tooth decay. Treatment of the groundwater supplies consists of disinfection, fluoridation and corrosion control. The Parker Street and New State Road Wells are also treated to remove low levels of volatile organic compounds.

Source Water Assessment Program

A source assessment of the various water supplies used by the Manchester Water Department was completed by the Connecticut Department of Public Health, Drinking Water Section. The assessment reports are intended to provide an understanding of the potential risk of contamination based upon specific risk factors for surface and groundwater sources. Manchester's overall susceptibility to potential sources of contamination was considered to be low for its surface water supplies because more than fifty percent of the watershed is owned by the Town and is preserved as open space.

The overall susceptibility to potential sources of contamination for the groundwater supplies was considered to be high because most land around the supplies is not owned by the Town. To control this risk the Town has adopted the regulations described in the Aquifer Protection Program which are designed to protect the groundwater supplies. These regulations protect critical aquifer zones from pollution by managing land use. Protection requires coordinated responsibilities shared by the state, municipality and water companies to ensure a safe and plentiful supply of public drinking water for present and future generations. These regulations can be viewed on the Town's website at manct.us/AQUIFER.

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 water poses a health risk.

More information about contaminants and potential health effects can be obtained from the EPA's Safe Drinking Water Hotline at 1-800-426-4791 or website at <http://water.epa.gov/drink/hotline/index.cfm>.

Sources of drinking water (both tap and bottled) include rivers, lakes, ponds, reservoirs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in untreated source water include: Biological contaminants, such as viruses and bacteria, which may come from sewage treatment plants, 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, farming or industry; Pesticides and herbicides, which may come from a variety of sources such as agriculture or residential uses; Organic chemicals, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production and can come from gas stations, urban storm-water runoff and septic systems; Radioactive contaminants, which can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants that are allowed in water provided by public water systems. The Food and Drug Agency establishes limits of contaminants in bottled water.

Water Quality Monitoring

Manchester's water is routinely monitored for bacteria, inorganic chemicals, organic chemicals and pesticides and herbicides in accordance with the Safe Drinking Water Act and the RCSA. The following tables contain important information about your water quality and include all contaminants that were found in the water. The results of these tests are reported to the Connecticut Department of Public Health (CTDPH). In 2024, the Manchester Water Department collected approximately 4,750 drinking water samples and processed approximately 27,000 drinking water test results. Over 90% of the testing is done by our in-house State certified laboratory; the remainder is contracted out to other State certified laboratories with different specialties.

REPORT HIGHLIGHTS:

GENERAL TESTING RESULTS (p. 5-7), PFAS (p. 7-8), UNREGULATED CONTAMINANTS (p. 9),
PUBLIC NOTIFICATION OF MONITORING/REPORTING VIOLATIONS (p.9), LEAD PROGRAM (p.10, 12)

Potential Sources of Contaminants	
Contaminant	How it gets in the water
Barium	Erosion of natural deposits
Bromodichloromethane	Disinfection by-product
Chloride	Natural deposits, runoff from road salting
Chlorodibromomethane	Disinfection by-product
Dieldrin	A legacy pesticide; soil runoff
Fluoride	Water additive which reduces tooth decay and promotes strong teeth
Lead	Household plumbing and lead pipes.
Nitrate as N	Erosion of natural deposits; runoff from fertilizer use or septic systems
PFAS (per- and polyfluoroalkyl substances)	Discharge from AFF fire fighting foam, manufacturing, and the breakdown of consumer products containing PFAS.
Sodium	Runoff from road salting, natural deposits
Trichloroethylene	Discharge from metal degreasing sites
Total Organic Carbon	Naturally present in the environment
Turbidity	Soil runoff

DEFINITIONS USED IN THIS REPORT:

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

HAL = Health Advisory Level—The concentration of a contaminant at which health effects are not anticipated to occur over specific durations of time.

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 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.

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.

N/A = Not applicable for the sample site area indicated

ND = Not detected

NL = Notification Level - The level of a contaminant that if exceeded requires public notification by a public water system to its customers.

NTU = Nephelometric turbidity units, used to measure the clarity of water and evaluate the treatment process.

pCi/L = Picocuries per liter, a measure of radioactivity

ppb = Parts per billion (for comparison, 1 cent in \$10,000,000)

ppm = Parts per million (for comparison, 1 cent in \$10,000)

ppt = Parts per trillion (for comparison 1 cent in 10 billion dollars)

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

ANNUAL SYSTEM FLUSHING WILL BE OCCURRING IN THE FALL OF 2025

Regularly scheduled spring flushing was delayed due to maintenance at the Water Treatment Plant. Sometimes, during the hydrant flushing program, or other high demand events, such as fire fighting, the water coming out of the tap may appear discolored for a period of time. Flush cold water through your tub for 5-10 minutes or until the water clears.

The Water Distribution System

Find your location on the map below to find your water source. The columns in several tables correspond to areas on the map and will help you better understand your water characteristics.

How does the water get delivered?

Drinking water flows to your home via a two hundred and sixty mile network of water mains, five booster pumping stations and ten distribution system storage tanks.

The source of water is dependent upon your location in the distribution system *and* the time of year. Many of our customers notice a seasonal change in the water they receive due to changes in the reservoir itself and a greater usage of some groundwater sources in the summer months due to higher water usage.

The system contains both surface water treated at the Globe Hollow Water Treatment Plant and groundwater from various municipal wells. In the summer months, there is increased demand due to lawn watering and other outdoor uses. The water supply contains proportionately more groundwater in the summer, particularly during drought conditions, and will have a slightly higher mineral content.

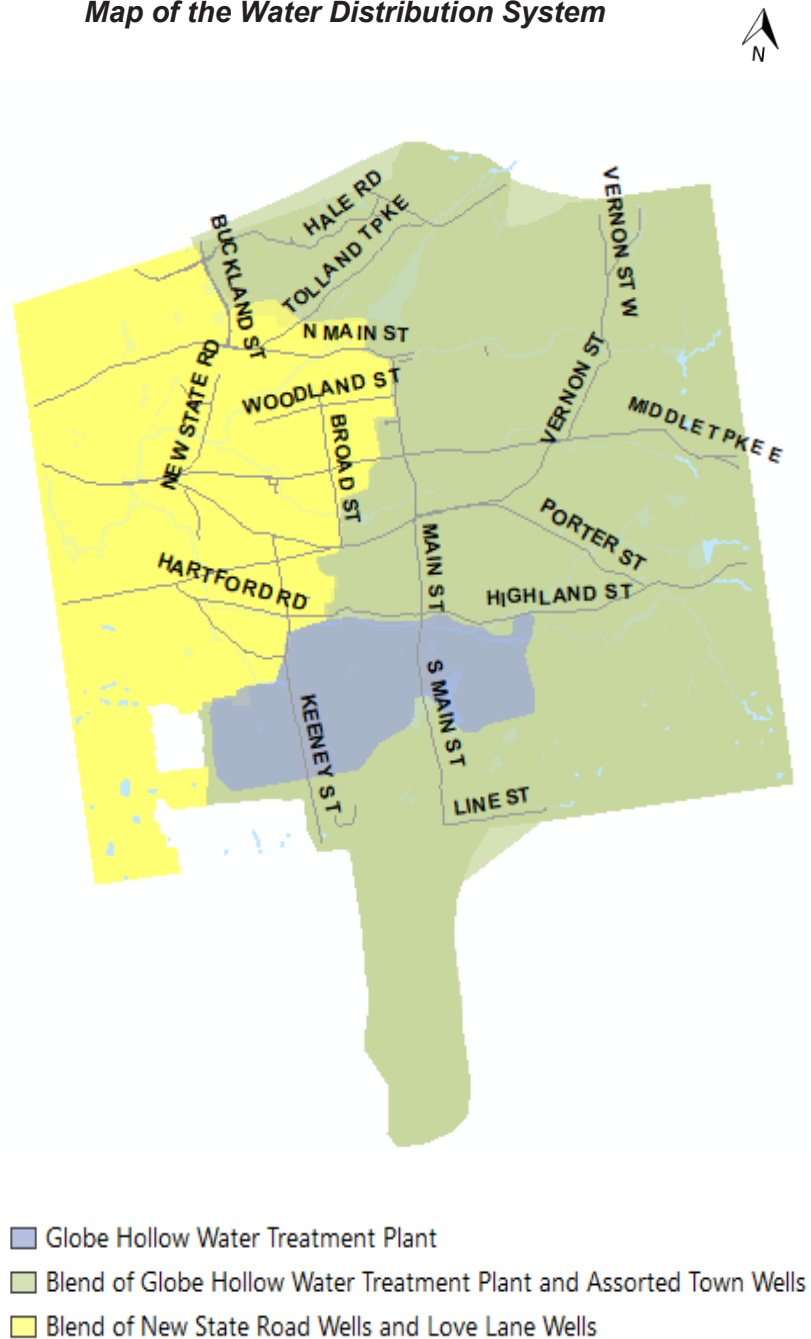
Some residents receive nearly 100% groundwater (yellow on the map) with only incidental contribution of blended water, and some residents receive nearly all surface water (bluish on the map), while most residents receive a blend and groundwater and surface water (green on the map).

The map represents an estimate of the blending conditions and should be considered an approximation of actual conditions.

Use the Map and the colors in the Map Legend to follow along in this report.

If you are not sure of your zone, we can look it up; call 860-647-6050 and we're happy to help!

Map of the Water Distribution System



How Much Water was used in 2024:

The Manchester Water Department used a total of 1.87 billion gallons of treated water in 2024, approximately 5.1 million gallons per day.

On June 20th, 2024 the department supplied 7.01 million gallons of water which was the highest single production day of the year. Overall, 51.7% of the total water produced was supplied from surface water via the Globe Hollow Water Treatment Plant, and the remaining 48.3% was supplied by groundwater sources.

Regulated Contaminants

Average* Levels and Range (where applicable) in 2024.

The following were present at levels below State and Federal allowable limits:

Contaminant	MCLG	MCL	Units	Globe Hollow Water Treatment Plant	Blend of Globe Hollow, Parker St. Progress Dr and Charter Oak Wells **	New State Road and Love Lane Wells***	Meets EPA Drinking Water Standard?
Barium	2	2	ppm	0.03 N/A	Tested in 2023 0.03 - 0.33	Tested in 2023 0.26—0.32	YES
Fluoride	4	4	ppm	0.69 0.41 - 0.82	0.67 0.11 - 1.11	0.71 0.15 - 1.21	YES
Nitrate as N	10	10	ppm	0.18 ND - 0.36	0.91 ND - 3.0	2.67 1.7 – 4.2	YES
Trichloroethylene	0	5	ppb	ND	ND ND - 1.06 ****	ND	YES
Total Organic Carbon *****	None	TT=Ratio ≥ 1.0	-	1.7 1.4 — 1.8	N/A	N/A	YES
Turbidity***** Average level for area, area range	None	TT=5	NTU	0.19 0.07 - 0.78	0.16 0.03 - 0.81	0.10 0.03 - 0.43	YES
Filter Plant: Highest single value % <0.3 NTU	None	TT= 95% of samples must be <0.3 NTU	NTU	0.28 100 % < 0.3	N/A	N/A	YES

*Averages are weighted by estimated flow contribution. Ranges encompass the entire dataset.

** Blended surface water and groundwater - approximately 65% from Globe Hollow Water Treatment Plant in 2024.

***Blended groundwater with only incidental surface water- approximately 75% from New State Road Wells in 2024.

****Trichloroethylene detected in Progress Drive only, at a range of 0.78-1.06 ug/L, with one sample less than 0.5 ug/L.

****Treatment technique calculation based on the average and range of the 11 months for which there are results; TOC was not monitored in November 2024 (see Violations p.3).

*****Turbidity is a measure of the cloudiness of the water. It is monitored to measure the effectiveness of our filtration system. Turbidity has no health effects, but it can interfere with disinfection.

Special Health Considerations:

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/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

For more information visit the EPA website: <http://water.epa.gov/drink/hotline/index.cfm>

Regulated Contaminants: System-wide testing					
Contaminant	MCLG	MCL	Range Detected	Major Sources in Drinking Water	Meets EPA Drinking Water Standard?
Chlorine	4 ppm (MRDL G)	4 ppm (MRDL)	0.74 Range 0.04 - 1.35	Water additive used to control microbes	YES
Total Coliform Bacteria	0	5 % of monthly samples	0 samples in 2024	Naturally present in the environment	YES
E. Coli	0	0	0	Human or animal fecal waste.	YES
Total Trihalo-methanes	0 ppb	80 ppb as LRAA	44 ppb highest LRAA* 2024 Range 6 - 78	Byproduct of drinking water disinfection	YES
Haloacetic Acids	0 ppb	60 ppb	19 ppb highest LRAA* 2024 Range 4 - 22	Byproduct of drinking water disinfection	YES
Lead— ** 90th % Calculation	0 ppb	AL = 15 ppb	3 ppb (2 samples out of 44 samples above AL) ND—38 ppb	Corrosion of household plumbing systems, erosion of natural deposits	YES
Copper—** 90th % Calculation	1.3 ppm	AL = 1.3 ppm	0.18 ppm (0 samples out of 44 samples above AL) 0.008—0.52 ppm	Corrosion of household plumbing systems, erosion of natural deposits	YES
Regulated Contaminants: System-wide testing (Radiological Testing 2020-2023)					
Alpha Emitters	0	15 pCi/L	ND— 1.1	Erosion of natural deposits	YES
Comb. Radium (226/228)	0	5 pCi/L	ND—1.9	Erosion of natural deposits	YES
Uranium	0	30 ug/L	ND - 1.0	Erosion of natural deposits	YES
Gross Beta Particles ***	0	50 pCi/L****	ND - 1.8	Decay of natural and man-made deposits	YES
Strontium-90 ***	0	8 pCi/L	ND —0.2	Erosion of natural deposits	YES
Tritium ***	0	20,000 pCi/L	ND –350	Erosion of natural deposits	YES

* LRAA (Locational Running Annual Averages) are calculated using 2023 and 2024 data.

** Lead and Copper results are from testing performed in 2023.

***Testing performed at Love Lane, Progress Drive, and Parker Street Wells only

****The MCL is 4 mrem/year; results were below 50pCi/L, which is below the threshold for compliance calculations

In an effort to ensure the safest water possible the State has required us to monitor some contaminants not required by Federal regulations. The Manchester Water Department's testing program also extends beyond State and Federal requirements. This enables us to fine tune our treatment process as we observe trending results.

Additional Contaminants

Contaminant	State MCL	Globe Hollow Water Treatment Plant	Blend of Globe Hollow, Parker St. Progress Dr and Charter Oak Wells	New State Road and Love Lane Wells	Meets CT Drinking Water Standard?	Additional Information
Chloride (ppm)	250 ppm	31 24 - 45	48 24 - 94	203 131 - 241	YES	Not Health Based
Sodium (ppm)	100 ppm	19 N/A	Tested in 2023 19 - 47	Tested in 2023 84 - 91	YES	Erosion of natural deposits
Dieldrin (ppb) Data from 2022-	MCL Not Established	ND	ND – 0.045	ND—0.048	YES	YES
Sulfate (ppm)	N/A	19 Range 13-27	18 Range 9 - 27	25 Range 14 - 33	YES	Natural deposits
Manganese ** (ppb)	N/A	10 Range 3– 25	Range 3– 25 **	59 ** Range 3 — 308	YES	Natural deposits
Calcium *** (ppm)	N/A	N/A	14 Range 9 — 19	69 Range 53 — 87	YES	Natural deposits

* Measured at Parker Street and Love Lane Only

** Measured at Globe Hollow Treatment Plant and New State Road Only.

*** Calcium was measured at select distribution sites with groundwater contribution.

** Manganese is a mineral that naturally occurs in rocks and soil. It exists in well water in CT as a groundwater mineral, but may also be present due to underground pollution sources. Exposure to high concentrations of manganese over the course of years has been associated with producing a syndrome that resembles Parkinsonism. However, manganese is of particular concern for bottle-fed infants, as certain baby formulas contain manganese, which, when mixed with water containing manganese concentration greater than 300 parts per billion for more than a total of 10 days per year, nor should the water be used to make formula for more than 10 days per year. For more information please visit: portal.ct.gov/-/media/departments-and-agencies/dph/dph/drinking_water/pdf/manganese_fact_sheet.pdf

PFAS: Q and A

What is PFAS? Per- and polyfluoroalkyl substances are a group of well over 4000 manufactured chemicals collectively referred to as PFAS. The use of PFAS has been widespread since the 1950s. They have been used in the manufacturing of non-stick surfaces, waterproof material, stain-resistant materials, food packaging, and firefighting foam. Drinking water consumption is only one route of exposure to these compounds. PFAS are persistent in the environment, hence the moniker of “forever chemicals”. They are so prevalent, they are even found in rainwater.

What's New? In April of 2024, the EPA finalized introduced maximum contaminant levels for 5 PFAS (PFOS, PFOA, PFHxS, PFNA, and HFPO-DA (Gen X)) as well as a Hazard Index to regulate the relative concentration of 4 PFAS (PFHxS, PFNA, Gen X, and PFBS). The compliance date for this regulation is currently 2029.

What's In Effect? The State of CT established drinking water action levels (ALs) for PFOA, PFOS, PFNA, PFHxS, PFBS, PFBA, PFHxA, Gen X, 9-Cl-PF3ONS and 11Cl-PF3OUdS between 2022 and 2023. It is important to note that while the levels of PFAS compounds detected have not changed significantly since initial sampling was done in 2019, the recommendations set forth by the CTDPH and the EPA have changed considerably. The EPA's lifetime Health Advisory Levels were published in 2022.

What's Next? Treatment options and other mitigation alternatives are being reviewed to reduce PFAS throughout the water system. These strategies will bring PFAS levels to non-detection levels wherever possible. The EPA PFAS Rule published in 2024 is under judicial review and anticipated to be replaced with a new proposed rule in 2025. Check our website <https://manct.us/LAB> for updates.

PFAS Results — 2024

The 2024 PFAS dataset contains a significant number of non-detections, as well as a significant number of very low level detections, including some compounds not previously detected. Of 29 PFAS compounds tested in 2024, 21 were detected; of these 9 were detected at levels above the laboratory reporting level. Reporting limits are the level at which a laboratory can reliably trust and report their data in legally defensible manner and can vary depending on the laboratory. Results have been averaged together in proportion with well production data for 2024. Where maximum (max) values are supplied in place of a range, the minimum values are below the detection limit (ND).

PFAS Compounds Parts per Trillion (Treated Water)	Globe Hollow Water Treatment Plant (GH)	Blend of Globe Hollow Plant and the Progress Drive, Parker Street and Charter Oak Wells	New State Road and Love Lane Wells	EPA MCLs/ HALs **	CTDPH ALs **
PFOS (ppt)	1.8* (1.5 * – 2.3 *)	2.3 * (1.5* — 6.1)	13.5 (3.7— 18) ***	4	10
PFOA (ppt)	2.4* (2.0 *—3.0 *)	3.0 (2.0* — 8.9)	10.7 (5.3 — 13)	4	16
9CI-PF30NS	ND	0.3* (max 1.5 *)	ND	N/A	2
PFNA (ppt)	ND	0.3* (max 2.4 *)	1.3 * (max 1.6 *)	10	12
Gen X (HFPO-DA)	ND	0.3* (max 1.7 *)	ND	10	19
PFHxS (ppt)	ND	0.4* (max 2.1 *)	3.5 (3.3 — 3.8)	10	49
PFHxA (ppt)	ND	0.6* (max 3.6)	4.7 (3.8 — 5.2)	N/A	240
PFBS (ppt)	ND	0.6* (max 2.8)	12.1 (4.9 — 15)	2000	760
PFBA (ppt)	ND	0.5* (max 4.6)	4.4 (2.7 * — 5.2)	N/A	N/A
PFPeA (ppt)	ND	0.6* (max 3.0)	4.9 (4.1 — 5.4)	N/A	N/A
PFHpA (ppt)	ND	0.5* (max 2.4*)	3.3 (1.8* — 3.9)	N/A	N/A
PFDA (ppt)	ND	0.4* (max 1.8*)	1.6 * (max 1.9)	N/A	N/A
UNREGULATED PFAS COMPOUNDS PRESENT BELOW REPORTING LEVELS ***					
Multiple Wells; Both Blended Zones		4:2 FTS, PFPeS, PFHpS		(ND — 2.4 *)	
Progress Drive Only		ADONA, 6:2 FTS, 8:2 FTS, PFMBAs, PFMPA, Gen X, 9CI-PF30NS, PFNA, NFDHA			
UNREGULATED PFAS COMPOUNDS NOT DETECTED IN MWD SYSTEM					
11CI-PFOUDs, PFDaA, PFEESA, NEtFOSAA, NMeFOSAA					

As elsewhere, concentrations reflect the blended average for the supply zones found on page 4, with area maximum noted for the blended water zones. Results are reported only as a range, for analytes with detections that fall exclusively below the reporting levels established by the testing laboratory.

* Results are detected and/or calculated at low levels that are lower than the laboratory reporting level.

** Levels established June 2022– April 2024. The compliance date for EPA MCLs and Hazard Index is 2029.

*** Exceeds the CTDHP Action Level established in June of 2022

**** These compounds have intermittent occurrence data below the reporting limit.

Health Effects of PFAS: Exposure to PFAS has been shown to have health effects, especially for sensitive populations. These effects include immunological response effects and other developmental effects and are of particular concern for infants, and anyone pregnant. For adults, they present an elevated risk of liver and thyroid problems as well as hormone disruption and may increase the risk of kidney and testicular cancer.

Unregulated Contaminant Testing

Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring is to help the EPA make a determination whether they should have a standard, which is based on prevalence of the contaminant, the ability to remove the contaminant through existing treatment technology, and the associated health effects of the contaminant. Being unregulated, these contaminants do not have an MCL. This round of testing included the 29 PFAS compounds. While these compounds have been previously tested and reported by the Manchester Water Department this round of testing is for the express purpose of capturing data for the EPA to evaluate whether additional PFAS compounds should be regulated. Lithium was also tested to be evaluated for potential EPA regulation. This limited testing took place in 2023-2024 and most samples did not have detectable lithium.

* All detections for lithium were less than the laboratory reporting limit of 22.5 ppb.

Contaminant	Units	Globe Hollow Water Treatment Plant	Blend of Globe Hollow Plant and the Progress Dr, Parker St. and Charter Oak Wells	New State Road and Love Lane Wells	Major Sources in Drinking Water
Lithium	ppb	ND	ND	ND—8.3*	Naturally Occurring

Public Notification of Monitoring And/Or Reporting Violations

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

Our public water system, PWSID CT0770021, recently violated drinking water monitoring and/or reporting requirements. As a supplier of public water, we are required to monitor the quality of our water supply ensure that it meets the current drinking water standards. Failure to conduct 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 customers of the Manchester Water Department, you have a 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 requirements listed below:

Total Alkalinity (WSF ID: 2125; Monitoring Period: November 1, 2024—November 30, 2024)
 Total Organic Carbon (WSF ID:2125; Monitoring Period: November 1, 2024– November 30, 2024)
 Total Organic Carbon (WSF ID 135; Monitoring Period: November 1– November 30, 2024)
 Nitrate+Nitrite (WSF ID 2125; Monitoring Period: January 1, 2024-December 31, 2024)
 MBAS—Foaming Agents (surfactants) (WSF ID 2125; Monitoring Period; January 1, 2024– December 31, 2024)
 E. Coli (WSF ID 163; Monitoring Period: November 1, 2024– November 30, 2024)
 E. Coli (WSF ID 176; Monitoring Period: November 1, 2024– November 30, 2024)

What is being done?

The following areas have been affected: Manchester Water Department Service Area

The following steps have been taken to correct these violations:

Monthly testing resumed December of 2024, annual testing resumed March of 2025.

Testing preformed in the immediate time periods before and after the periods listed met all required standards.

We can expect to return to compliance or resolve the situation by: Monthly sampling resumed in December, 2024. Annual sampling was conducted in December of 2023 and March of 2025; this testing did not reveal any irregularities.

If you have questions, please contact: Manchester Water Department by telephone at 860-647-6050, or by email at waterandsewer@manchesterct.gov. We are physically located at 125 Spring Street in Manchester, CT.

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.

The Manchester Water Department takes compliance and drinking water safety very seriously and apologizes for this lapse. Corrective actions have been taken internally to prevent any recurrence.

GET THE LEAD OUT! Join us in our efforts to identify and remove lead pipes.

What's New: The Manchester Water Department has created an informational website and special map detailing service line material throughout our water system. Check out the map to see where the lead is (and isn't)! <https://manct.us/PIPEINFO>

Customers with pipes of unknown materials and those with lead and galvanized pipes received a letter regarding their pipe materials and asking their help to aid us in completing our inventory. To self report your pipe material please follow the directions and fill out the survey at <https://manct.us/PIPESURVEY>. Alternatively, you can simply send a picture of the pipe leading from the wall to the water meter to: lead@manchesterct.gov.

We provide free water pitchers with filters as well as lead testing to our customers with lead service lines. To identify your service line, follow the directions on the last page of this report or on our website. Customers should expect to receive another letter this fall if we have been able to verify the pipe material, or if their service contains a lead or galvanized iron pipe. Service line inspections are available for customers that need assistance identifying their service line.

When were Lead Pipes Installed? Lead pipes were primarily installed in this area before 1945, but weren't legally banned until 1990.

Information on the Health Effects of Lead from the EPA: 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 Manchester Water Department is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components in your home. 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 Manchester Water Department at 860-647-6050. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of women who are exposed to lead before or during pregnancy can have increased risks of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

What you can do to Reduce Lead Exposure: When water has been sitting for several hours, minimize the potential for lead exposure by flushing the tap for 30 seconds to 2 minutes before using water for drinking or cooking.

What the Manchester Water Department is doing to Reduce Lead and Copper Exposure: An additive with orthophosphate is used to inhibit corrosion from lead and copper. Town-owned lead service pipes and lead connectors are replaced whenever they are found in the system.

Lead testing: Testing is performed at regular intervals throughout the community. See page 6 for the latest results. As testing expands, you may be contacted to join our regular testing program.

Information on Copper in Drinking Water: 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 doctor.

Flushing the water prior to use for drinking or cooking will dramatically reduce the potential for exposure to lead. This will clear the pipes of any water that has been sitting stagnant, over time.

Other Water Quality Information

Information about hardness: Hardness is due to dissolved minerals, primarily calcium and magnesium, naturally occurring in groundwater. **The level of hardness is not associated with health risks.** In fact, calcium and magnesium can contribute positively to your overall mineral intake.

Manchester's water ranges from moderately hard (Globe Hollow Treatment plant blended with groundwater) to very hard (New State Road Wells blended w/ Love Lane Wells). Areas served by the New State Road and Love Lane wells are in the 250 mg/L range for hardness (14.6 grains per gallon).

This level of minerals will cause home testing kits to read very "high". What the kits are picking up are total dissolved solids, which are minerals that naturally occur in drinking water as result of rainwater dissolving minerals in rock.

Information on *Cryptosporidium*:

Cryptosporidium is a microscopic organism commonly found in the environment. *Cryptosporidium* can contaminate surface waters, including drinking water sources, via runoff from the watershed. Ingesting only a small amount of *Cryptosporidium* in contaminated water can cause Cryptosporidiosis, a gastrointestinal illness that typically lasts 10 to 14 days. The ozone system, installed as part of the water treatment plant upgrade in 2011, provides an additional barrier of protection against *Cryptosporidium*. The Manchester Water Department has completed a two year monitoring program for *Cryptosporidium*. Samples of untreated source water were collected monthly from October 2015 to September 2017 to comply with EPA's Long Term 2 Enhanced Surface Water Treatment Rule (LT2). *Cryptosporidium* concentration was less than 0.075 oocysts/Liter indicating compliance with the treatment requirements of the LT2 rule.

Information about Radon:

Radon is a naturally occurring radioactive gas which may be present in rock, soil, groundwater and air. Radon normally escapes from the ground in small concentrations into the atmosphere, where it dissipates harmlessly. Elevated concentrations of radon, however, can exist if this gas is trapped in our homes or businesses. Radon can enter the home through cracks and openings in foundations. Some radon can also enter homes through drinking water supplies during showering, cooking and other water activities.

The EPA has set an Action Level of 4 picocuries per liter (pCi/L, a measure of radioactivity) for radon in air. Studies have shown that approximately 10,000 pCi/L of radon in water will normally produce a concentration of about 1 pCi/L in air. The radon entering the home through tap water is a small source of all the radon in indoor air. The radon levels in Manchester groundwater have been found to be far below 10,000 pCi/L. If you are concerned about radon in your home, *test the air*.

For more information contact CTDPH at (860) 509-7367 or the National Radon Hotline at 1-800-767-7236.

Conservation Information

Water Conservation Tips (Courtesy of the Environmental Protection Agency)

- * Repair all leaks. A leaky toilet can waste 200 gallons of water per day. To detect leaks in the toilet, add food coloring to the tank. If the colored water appears in the bowl, the toilet is leaking.
- * When using a hose, control the flow with an automatic shut-off nozzle.
- * Water only when necessary. The most effective time is early in the morning; never on windy, rainy or very hot days. Use water efficient, slow soaking irrigation systems. Direct the water onto your plants, not the driveway or sidewalk.
- * Consider replacing your five-gallon per flush toilet with an efficient 1.6-gallon unit. This will permanently cut your water consumption by 25%. Purchasing a high efficiency washing machine will save over 50% in water and energy use.

Spotlight on Lead— Identify Your Service Line!

We are still working on our service line material inventory. In the event that we find or suspect or there may be lead pipes leading into your home we may contact you to participate in our targeted sampling program. This helps us to ensure that our water treatment is working optimally. Infants and children who drink water containing lead could have decreases in IQ and attention span and increases in learning and behavior problems. Lead exposure among women who are pregnant increases prenatal risks. Adults with long-term exposure have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.

Flush your water after returning home and upon awakening.

Flushing the water for several minutes will provide you with fresh water from the water main, and will lessen the risk of any potential lead exposure. This is especially important if the water has not been used for several hours— such as overnight or if you have returned from being away. It is especially important to run the water after any service disruption. Always use cold water for cooking and drinking water as well as for formula preparation.

We are working on compiling a database of all of the piping material throughout Manchester installed before the lead service ban in 1990 and could use your help.

Please see our website **<https://manct.us/PIPEINFO>** for more information on how to identify and report your service line material. Use our interactive map to look up your service line material.

1. Locate the pipe coming into your wall leading to the water meter.

Does a magnet stick to it? YES

Your pipe is iron or steel—most likely a galvanized iron - it will look black or dark gray and be dull when scratched lightly.

Does a magnet stick to it ? NO

Is it the same color as a penny if you lightly scratch it? YES— You have a copper service line

Is it blue, black, or white? YES—You have a plastic service line

Is it a dull gray metal? YES

Is it shiny if you lightly scratch it with a key? YES— You have a lead service line

2. Please take a picture and send it to lead@manchesterct.gov.

Thank you for your cooperation!

If we confirm you have a lead service line, we will include your home in our lead sampling program. Even with a lead service pipe coming into your home, there may not be lead detected in the water due to the treatment we provide. Customers with lead service lines will be entitled to free lead testing and a free pitcher with a filter certified to remove lead.

Notifications will sent each fall to each residence on file as having a lead, galvanized service lines, as well as to those customers will unknown or unverified service lines. Please help us by submitting a photo of your service line, or if you prefer to have a technician identify your service line—please call 860-647-6050 and ask to schedule a service line inspection.

Operations



Manchester Water and Sewer is pleased to offer convenient online payment services on our Customer Portal at **www.manchesterct.gov/water-sewer**. Our online system provides customers access to view or pay bills using a credit card, debit card or bank account at no charge. Customers can register for an online account to access extended features like email and text alerts and automatic payment processing. If you need assistance with the online payment website, please contact **Customer Service at (860) 647-6050**.